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BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA

DOCKET NO. 80-378-E - ORDER NO. 82-2 ✓

January 28, 1982

IN RE: Application of Duke Power Company)	ORDER
for Authority to Adjust and)	APPROVING RATES
Increase its Electric Rates and)	AND CHARGES
Charges.)	

I.

INTRODUCTION

This matter comes before the South Carolina Public Service Commission (hereinafter "the Commission") by way of the verified Application, dated and filed on December 29, 1980, of Duke Power Company (hereinafter "the Company" or "Duke") whereby the Company sought certain relief in the nature of the approval of certain adjustments in the general rates and charges for the electrical services rendered to its retail customers in South Carolina, effective for service rendered on and after January 28, 1981. The Company's Application was filed pursuant to S. C. Code Ann., § 58-27-860 (1976) and R. 103-830 et seq. of the Commission's Rules and Regulations. The proposed rates and charges, which were attached to the Application and incorporated therein as Exhibit B, would have produced additional revenues of approximately \$123,770,000, had they been in effect for the twelve months period ending December 31, 1980. The additional revenues represented an approximate increase of 29.32%,¹ in the annual gross operating revenues generated by the Company's previously

¹The Application stated that the proposed rates and charges would produce additional revenues of \$102,503,000 based on test year ending September 30, 1980. The Commission set the test year ending December 31, 1980 in which the proposed rates would generate additional revenues of \$103,675,000 excluding fuel savings as a reduction of revenues. With fuel savings reflected as a reduction in revenues, the proposed rates would produce additional revenues of \$123,770,000 as stated in Hearing Exhibit No. 31.

approved base rates.²

On January 9, 1981, the Company filed a Motion for suspension of rates and approval of an Undertaking, dated January 7, 1981.³ In Undertaking No. 1 the Company notified the Commission of its intention to place a portion of the suspended rates (4%) into effect, subject to refund, for service rendered on and after January 28, 1981. On January 9, 1981, the Commission entered Order No. 81-20, determining that a public hearing should be held, suspending the effective date of the proposed rates and charges until January 28, 1982 unless a final decision were made sooner, setting the test year period as the 12 months ending December 31, 1980, and requiring the Company to file revised exhibits to reflect the new test year.⁴

On January 15, 1981, the Commission entered Order No. 81-32, approving Undertaking No. 1. After giving the required notice in newspapers having general circulation in its service area, the Company began charging the 4% increase effective for service rendered on and after January 28, 1981.

²The Company's presently authorized rates and charges for South Carolina Retail Electric operations were approved by Order No. 80-474, issued on August 29, 1980, in Docket No. 79-300-E, IN RE: Application of Duke Power Company. The current fuel component in the Company's base rates was authorized by Order No. 81-787, issued on November 25, 1981, in Docket No. 77-394-E, IN RE: Duke Power Company-Adjustment of Base Rates for Fuel Costs.

³The Undertaking was filed concurrently with the Company's January 9, 1981 Motion.

⁴The Company filed the required revised exhibits by March 20, 1981.

On January 15, 1981, the Commission's Executive Director instructed the Company to cause to be published a prepared Notice of Filing once a week for three consecutive weeks in newspapers of general circulation in the Company's service area in South Carolina. The Notice of Filing indicated the nature of the Company's Application and advised all interested parties desiring to participate in the proceeding of the manner and time in which to file the appropriate pleadings. The Company was likewise required to notify directly all customers affected by the proposed rates and charges. On March 24, 1981, the Company furnished affidavits demonstrating that the Notice of Filing had been duly published in accordance with the instructions of the Executive Director.⁵ In addition, the Company certified that a copy of the Notice of Filing had been mailed to each customer affected by the rates and charges proposed in the Company's Application.

The Commission Staff pursuant to R.103-853 of the Commission's Rules and Regulations, filed with the Commission and served upon the Company Information Data Request No. I, dated February 25, 1981, whereby the Staff sought the production of certain additional information relative to the Company's Application and operations.

⁵The Notice of Filing was published in the State Register, Vol. 5, No. 3, dated February 6, 1981.

The Company subsequently submitted to the Commission and the Staff its responses to the Information Data Request.⁶

On June 9, 1981, the Commission issued its Order No. 81-418, whereby the Commission scheduled the hearing contemplated by Order No. 81-20 to commence on October 5, 1981. Order No. 81-418 likewise required the Company, on or before August 3, 1981, to file with the Commission and serve on all parties of record copies of the testimony and exhibits of the Company's intended witnesses. Order No. 81-418 required the Commission Staff and other Parties of Record to prefile testimony and exhibits on or before September 28, 1981.

On September 30, 1981, the Company filed a Petition and Undertaking No. 2 in which Duke notified the Commission of its intent to place an additional portion of the suspended rates and charges (approximately 9%) into effect under bond for service rendered on and after October 18, 1981. On October 9, 1981 the Commission entered Order No. 81-678, approving the Undertaking and requiring public notice. After giving the required notice, Duke placed this increase into effect, subject to refund, for service rendered on and after October 18, 1981. The Company's action was authorized by the provisions of S. C. Code Ann., § 58-27-880 (1976).

Petitions to Intervene were received and accepted on behalf of the following: Irvin D. Parker, Consumer Advocate for the State of South Carolina (hereinafter "the Consumer Advocate"); South Carolina Textile Manufacturers Association (hereinafter "SCTMA"); Palmetto Alliance, Inc.; Owens-Corning Fiberglass Corporation; South Carolina Welfare Rights Organization (hereinafter "SCWRO"); Mary Freeman; and Riegel Textile Corporation.

⁶The Company's responses to the Information Data Request were introduced into evidence during the hearing in this proceeding. See, Hearing Exhibit No. 12.

Thereafter, pursuant to notice duly provided in accordance with applicable provisions of law and with the Commission's Rules and Regulations, a public hearing relative to the matters asserted in the Company's Application was commenced in the offices of the Commission on October 5, 1981. Steve C. Griffith, Jr., Esquire, William L. Porter, Esquire, W. Edward Poe, Esquire and Howard L. Burns, Esquire, represented the Company; Steven W. Hamm, Esquire, Raymon E. Lark, Jr., Esquire, represented the Intervenor, the Consumer Advocate; Robert Guild, Esquire, represented the Intervenor, SCWRO; Timothy J. Battaglia, Esquire, represented the Intervenor, Owens-Corning Fiberglass Corporation; M. John Bowen, Jr., Esquire, represented the Intervenor, the SCTMA; Douglas McKay, Jr., Esquire and Julius W. McKay, represented the Intervenor Riegel Textile Corporation, and Cheryl Ann Walker Davis, Esquire and C. Dukes Scott, Esquire, represented the Commission and the Commission Staff.

The public hearing before the Commission which commenced on October 5, 1981 was recessed on October 15, 1981. Immediately prior to the recess, the Company renewed in writing its Motion that the Commission recess the public hearing in this docket until December, 1981 at which time an abbreviated hearing dealing only with McGuire Unit No. 1 to be held in Columbia. On October 23, 1981, the Commission entered Order No. 81-708, setting a public hearing on December 14, 1981 for consideration of issues related to McGuire Unit No. 1.

On November 18, 1981, the Company filed a Petition and Undertaking No. 3 in which the Company notified the Commission of its intent to place the remaining portion of the suspended rates and charges (approximately 10.4%) into effect under bond for bills rendered on and after December 1, 1981.

On November 25, 1981, the Commission entered Order No. 81-788, approving Undertaking No. 3 and requiring public notice. After giving the required notice, the Company placed the total increase into effect, subject to refund, for bills rendered on and after December 1, 1981.

Further public hearings were held in York, South Carolina on December 11, 1981, and in Anderson, South Carolina on December 18, 1981. The public hearing on December 14, 1981 in Columbia resumed as scheduled and was completed on that same day. The hearings were closed after the public hearing in Anderson, South Carolina on December 18, 1981. Leave to all parties to file briefs on or before December 18, 1981 was granted by the Commission at the close of the hearing.

In the consideration of the evidence in the record now before us, the Commission has remained mindful of our statutory responsibility, delineated by S. C. Code Ann., §§ 58-27-870, et seq. (1976) to determine the lawfulness and reasonableness of rate adjustments proposed by electrical utilities. In the due exercise of that responsibility and for the reasons more fully discussed herein, the Commission has determined that an overall rate of return on the Company's South Carolina retail electric operations of 10.57% based on adjusted test year operations is fair and reasonable, and that in order to have the opportunity to achieve such return, the Company would have required additional annual revenue of \$77,063,000. Founded upon the Company's test year operating and financial experience as adjusted, the Commission has concluded that the allocation of the additional revenue, as provided in Section XII herein, meets the applicable statutory criteria and is consistent with other pertinent

legal pronouncements. Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591, 64 S.Ct. 281, 88 L.Ed.2d, 333 (1944); Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia, 262 U.S. 679, 43 S.Ct. 675, 67 L.Ed. 1176 (1923); Southern Bell Telephone & Telegraph Co. v. Public Service Commission of South Carolina, 270 S.C. 590, 244 S.E.2d 278 (1978).

II.

THE COMPANY

Duke Power Company is an electric utility operating in the States of North Carolina and South Carolina, where it is engaged in the generation, transmission, distribution and sale of electricity to the public for compensation. The Company's retail operations in South Carolina are subject to the jurisdiction of this Commission, pursuant to S. C. Code Ann., §§ 58-27-10 et seq. (1976). The Company's retail operations in North Carolina are subject to the jurisdiction of the North Carolina Utilities Commission (hereinafter "the NCUC"); the Company's wholesale operations in North Carolina and in South Carolina are subject to the jurisdiction of the Federal Energy Regulatory Commission (hereinafter "the FERC").

The Company's service area consists of a territory in excess of 20,000 square miles, located in the Piedmont section of the Carolinas, from the Virginia-North Carolina border, near Eden, North Carolina, to the South Carolina-Georgia border, near Anderson, South Carolina. Within that service area, the Company provides electric service to over 1,284,000 customers. During the test period, nearly 86% of the Company's operating revenues were attributable to its retail electric services.⁷

⁷Hearing Exhibit No. 20, Report of Accounting Department, p. 17.

Of the total kilowatt hours produced during the test period in this proceeding, the Company generated 72% from fossil fueled units, 25% from nuclear units and 3% from hydroelectric and oil-fired units.⁸ The Company's generating capability as of December 31, 1980 totalled 12,048MW, comprised of 7,417MW of coal-fired generation, 2,580MW from nuclear units, 1,452MW from hydroelectric units, and 599MW from internal combustion turbines. The Company operates an intergrated transmission network and distribution system throughout its service area, and its facilities are interconnected with the facilities of adjacent electrical utilities to provide for the interchange of energy.

The Company's South Carolina service area includes seventeen counties in which are located the municipalities of Anderson, Greenwood, Greenville, Spartanburg, York and Lancaster. Approximately twenty-seven percent (25%) of the Company's total annual revenues from its test year electric operations was derived from sales subject to the jurisdiction of the Commission.⁹

The Company's presently approved rates and charges for its South Carolina retail operations were authorized by the Commission's Order No. 80-474, entered in Docket No. 79-300-E, on August 29, 1980. The Company's Application herein maintains that increased operating costs, an inadequate rate of return and the commercial operation of a major generating facility have combined to require the rate adjustments proposed.¹⁰

⁸See, Hearing Exhibit No. 12, Data Request No. 1, Item 70, p. 7.

⁹Hearing Exhibit No. 20, Report of Accounting Department, p. 17.

¹⁰Application of Duke Power Company, filed on December 29, 1980.

In describing the necessity of the relief sought herein,
the Company's President and Chief Operating Officer, William
S. Lee, stated:

This rate increase is predicated on
three principal factors: the bringing
of McGuire Unit No. 1 into commercial
operation, the increase in our operation
and maintenance costs, and the necessity
to earn a competitive return on invested
capital.

Unit No. 1 of the McGuire Nuclear Station
is expected to be in commercial operation
while this rate case is pending before this
Commission. It represents an investment
of over \$900 million dollars....

Every single day of delay in receiving
revenues to cover these costs represents
a substantial loss which the Company can
ill afford....

The remaining part of the rate increase
is associated with a small portion of
CWIP, the need to earn a higher return
on invested capital, and the continuing
effect of inflation on our operating
expenses. The higher return is necessary
in order for the Company to raise equity
capital on reasonable terms....Double
digit inflation, record high interest
rates, increasing regulatory requirements....
have prevented the Company from earning
enough to provide adequate and reliable
service to our future customers and a return
to our existing shareholders that is fair.
As we attempt to plan ten to twelve years ahead,
which is what we must do, it has become
increasingly clear to us that our ability
to serve our customers in the future is
linked to our financial integrity today
and each year following.

Tr., Vol. 1, Lee, pp. 64-65.

III.

CONSTRUCTION PROGRAM

As an electrical utility, the Company has the statutory obligation to furnish "adequate, efficient and reasonable service." S. C. Code Ann., § 58-27-1510 (1976). The Commission has a concomitant responsibility to require the continuous provision of "reasonable, safe, adequate and sufficient" service. S. C. Code Ann., § 58-27-1520 (1976). As we have consistently recognized in previous decisions, in an age of extensive planning and protracted construction time for electrical generation, transmission and distribution facilities, the Commission must preserve an awareness of the interrelationship among projected demands for electrical energy, the proposed construction programs and capital requirements necessary to meet those demands, and the maintenance of adequate reserve margins to address unforeseen contingencies.¹¹

The record of the instant proceeding includes extensive testimony with regard to the Company's projected construction budgets and the anticipated growth in energy sales and in peak demand as independently forecasted by the Company and by the Commission Staff.¹² In our analysis of the full spectrum of issues herein, the Commission has given thorough consideration to the significance of the projected construction expenditures which are designed to address the reasonable forecasted demands for electrical energy in the Company's service area while providing for the maintenance of a sufficient

¹¹See, e.g., Order No. 80-375, issued on June 30, 1980, in Docket Nos. 79-196-E and 79-197-G, IN RE: Applications of South Carolina Electric and Gas Company, at p. 15 and the decisions therein cited at fn. 27.

¹²See, e.g., Tr., Vol. 1, Lee, pp. 72-82, Vol. 11, Bailey, pp. 91-100; Vol. 12, Bailey, pp. 3-19. See, Hearing Exhibit No. 12, Data Request No. I, item 29, for an explanation of the forecasting methodology employed by the Company; and Hearing Exhibit No. 18, for an explanation of the methodology utilized by the Commission Staff.

reserve of generating capacity to continue reliability and adequacy of service.

The Company's witness, William H. Grigg, Vice President, Legal and Finance, described the Company's projected capital expenditures for the 1981-1983 period, and indicated that the proposed three-year budget called for expenditures of approximately \$2.0 billion for the McGuire and Catawba Nuclear Stations, for nuclear fuel, and for the growth and improvements of the transmission and distribution networks. Tr., Vol. 4, Grigg, pp. 39-40. The Company's anticipated construction budget for that period excludes all costs associated with the Cherokee Nuclear Station Units, which resulted in a reduction in the 1981-1983 construction budget of approximately \$500,000,000, as a consequence of the Company's decision to delay indefinitely the completion of the Cherokee Nuclear Station.¹³ As the Company's witness Grigg indicated:

It is impossible to determine the costs that will be incurred with respect to Cherokee in the 1981-83 period until the Board of Directors takes further action with respect to those units....

The decision to indefinitely delay Cherokee was, in our opinion, a matter of financial necessity. The estimated cost of Cherokee Units 1 and 3, assuming commercial operation in 1990 and 1993, was \$6.5 billion, more than double the Company's net plant in service at 1980 year end

Tr., Vol. 4, Grigg, pp. 41-42.

While the Company avers that a portion of its total capital requirements for the 1981-1983 period will be financed with internal cash, including retained earnings, depreciation, amortization and funds temporarily available through tax

¹³The Cherokee Unit No. 1 and Cherokee Unit No. 2 had previously been scheduled for completion in 1990 and 1993, respectively. (Tr., Vol. 4, Grigg, p. 41).

deferrals, the Company further asserts that "the exact amount of external financing that will be required over this three-year period cannot be known until the Company's obligations with respect to Cherokee are determined." Tr., Vol. 4, Grigg, pp. 43-44.

The Company's projected annual construction expenditures for the 1981-1983 period appear in the following Table:

TABLE A	
<u>GROSS CONSTRUCTION DOLLAR EXPENDITURES</u> (ESTIMATED)	
1981	\$ 570,000,000
1982	530,000,000
1983	<u>477,000,000</u>
TOTAL	<u>\$1,577,000,000</u>

(Source: Hearing Exhibit No. 12, Data Request 1, Item 18)

The projected construction budget clearly represents a substantial expenditure of capital. The Company's construction budget through 1983 reflects the proposed completion of four nuclear generation units each designed to produce generating capacity in excess of 1,100MW.

The Company's proposed construction projects and the associated capital expenditures represent the Company's calculated response to the anticipated need for electrical energy imposed by the demands of its present and prospective customers. By necessity, that response incorporates a considerable degree of long-range planning. The availability of a reasonable and reliable evaluation of the future demands for energy, upon which an electrical utility's construction program and expenditures are founded, is an integral element in the Commission's constant analysis of the service supplied by that utility. Tr., Vol. 11, Bailey, pp. 91-92. This Commission has frequently recognized the significance of rational forecasting of demand and the deleterious effects of

inaccurate projections. The significance of sales and demand forecasts is predicated upon the obligation of electrical utilities to supply sufficient service to meet the present and reasonably anticipated demands for energy. That obligation is complemented by the Commission's oversight responsibility which must be exercised to provide that the availability of energy is accomplished at just and reasonable rates in order to balance the interests of the utility and its investors, the ratepayers and the general public. The establishment and maintenance of adequate generation and delivery systems are complicated by the necessity to develop construction plans and energy forecasts as well as financing programs over extended periods of time. Patently, overestimates of future demand will promote the construction of capacity which is neither used nor useful in providing electrical service, the costs of which present and future ratepayers would be called upon to bear. On the other hand, a demand forecast which underestimates future growth may well produce critical energy shortages, via loss of electrical service, with the consequential injury to the physical and economic health of the State of South Carolina and her citizens. Such adverse possible consequences require the Company and the Staff to exercise considerable caution in the manner of forecasting demand, and likewise require the Commission to maintain close scrutiny over the projected and actual results of such forecasting.¹⁴

The Company's plans for its construction program are founded principally upon forecasts of peak demand growth trends, derived through the analysis of regression models for energy and sales demands,¹⁵ which recognizes the influence

¹⁴See, Order No. 80-375, supra, at pp. 17-18; and Order No. 79-230, supra, at pp. 11-12; and Order No. 78-404, issued on July 13, 1978, in Docket Nos. 77-354-E and 18,361 and 18,367, IN RE: Application of Carolina Power & Light Company.

¹⁵See, FN. 12, supra.

of economic variables and the effects of weather.¹⁶ For its summer peak demand, the Company anticipates a growth rate of 4.0% through 1990 and a growth rate of 4.2% thereafter. The winter peak demand is expected to increase at a rate of approximately 4.4% through 1990.¹⁷

The Commission Staff's witness, R. Dow Bailey, an economist in the Commission's Research Department, offered testimony relative to the Staff's independent forecasts of energy sales and peak demand for the Company. The Commission Staff's study¹⁸ was intended to provide an additional method whereby the Commission could evaluate effectively the forecasts of energy sales and peak demand utilized by the Company. The study was designed, inter alia, to address the sensitivity of energy sales to changes in levels of economic activity, the prices of electricity and the prices and availability of substitute fuels. In addition, the Staff's methodology reflected the system's sensitivity to weather. The Staff's study established the respective, anticipated energy usage for each customer class based on separate energy models for such classes, incorporating an econometric analysis founded on the use of independent variables identified through the use of regression techniques.

22. ¹⁶See, Hearing Exhibit No. 12, Data Request I, item

Item 22. ¹⁷See, Hearing Exhibit No. 12, Data Request I, Response

¹⁸See, Hearing Exhibit No. 18.

The Commission Staff's review produced a forecast of peak demand, based upon the use of projected load factors and a combination of assumptions imposed upon the independent variables. The forecast of peak demand produced a growth rate at an annual rate of increase of 3.5% for the period through 1996.

While the Staff's econometric analysis did not incorporate directly the effects of conservation measures, improved technologies or load control programs, the energy sales and peak demand estimates were adjusted to reflect the realization of the projected energy savings through the operation of price-induced conservation and load management.¹⁹

The concept of the adequacy of the reserves of system generating capacity is integral to the process of load growth forecasting and the extent of system reliability. The record of this proceeding contains considerable testimony relative to the Company's projected reserves and underscores the relationship between the projections of peak demand and the availability of reasonable reserves. The following Table illustrates the Company's anticipated reserve margin available at peak demand, which reflects the effects of load management programs and interruptible load savings and which represents the latest projections of energy sales and load factor (Hearing Exhibit No. 19):

¹⁹See, Hearing Exhibit No. 18, pp. 23-26.

TABLE B
RESERVE MARGINS

1984	28.3%
1985	34.2%
1986	38.7%
1987	33.6%
1988	29.2%
1989	23.5%
1990	18.4%
1991	17.8%
1992	17.4%
1993	12.4%
1994	8.8%

The Company's witness Lee maintained that a twenty (20%) percent reserve margin is the minimum which the Company believes to be necessary to enable it to continue to provide reliable service. Tr., Vol. 1, Lee, p. 109. The Commission acknowledges that the Company's forecasted available capacity for the period through 1990 indicates that the available reserves will not meet in several years the minimum reserve margin considered reasonable by the Company. The Commission will remain concerned that the Company's anticipated system reserves in the early part of the 1990's may constitute less than satisfactory levels of available capacity to enable the Company to meet the expected load growth and to maintain a sufficient margin to protect the Company's customers and the public interest at large. Our concern is intensified by the awareness that a theoretic calculation of available reserve capacity may well be even less satisfactory when operating conditions and circumstances combine to reduce "paper reserves" to narrower margins. Our analysis of the record before us herein only serves to underscore both the importance of concentrated load management programs²⁰ and the significance of a constant review and refinement of the applicable forecasting methodology combined with a cautious evaluation of forecasted energy sales and peak demand.

²⁰See, Tr., Vol. 1, Lee, pp. 73-79.

This Commission has stated on several previous occasions that it is axiomatic that even the most sophisticated and rigorous analysis of projected load requirements cannot precisely predict the effect of future events.²¹ The Company likewise recognizes the imprecision inherent in such endeavors and consequently engages in systematic evaluations of its projections and makes adjustments in its construction program in concert with the findings of such analyses. This empirical review provides an element of flexibility to the construction program, given the extensive lead time required for the planning and construction of generation, transmission and distribution facilities, and thereby operates to balance the need for additional capacity with the extent of the projected demand.

The record in this proceeding and the Commission's findings thereon do not wed the Commission inextricably to the methodology or results of the forecasts of load growth presented by the Company, by the Staff, or by the Consumer Advocate. However, the Commission is of the opinion that the projections made by the Company, and independently derived by the Staff represent expectations within a reasonable range for the purposes of this proceeding. The Commission finds it unnecessary to isolate an exclusive method or end result advanced by the witnesses herein which is more reliable or meaningful than the others presented in the record of this proceeding. Consequently, the Commission finds likewise reasonable the Company's general construction program, as premised upon the currently forecasted load growth.

²¹See, e.g., Order No. 80-375, supra, at p. 24; and Order No. 79-230, supra, at p. 15; Order No. 78-404, supra at pp. 16-17, and, Order No. 80-474, supra, p. 17.

The Commission will continue to expect the Company to exercise the utmost care in reviewing and revising its forecasts of load growth and concomitant construction program especially with respect to its Cherokee Units. The Company, the Intervenor, and the general public can be assured that the Commission and Staff will continue to maintain the scrutiny and review demanded by the Commission's statutory responsibilities, and we encourage the Company to continue to actively pursue its Load Management Programs, including accelerating the availability of its residential water heater and residential air-conditioner load control program, to more areas of its South Carolina system, more rapidly than the original schedule.

IV.

TEST YEAR

A fundamental principle of the ratemaking process is the establishment of a test year period. Ideally, such a period should be represented by the most recent twelve months preceding the date of filing a rate adjustment application for which data is available. While the rates and charges finally approved will have prospective effect only, this Commission has routinely adhered to the view that the immediate past experience, characterized by identifiable operating results for a complete twelve months period, provides the most reliable guide for the immediate future. The reliance upon the test year concept, however, is not designed to preclude the recognition and use of other historical data which may precede or postdate the selected twelve month period.

Integral to the use of an average year, representing operation conditions to be anticipated in the future, is the necessity to make normalizing adjustments to the historic test year figures. Only those adjustments which have reasonable and definite characteristics, and which tend to influence reflected operating experience are made to give proper consideration to revenues, expenses and investments. Adjustments may be allowed for items occurring in the historic test year, but which will not

recur in the future; or to give effect to items of an extraordinary nature by either normalizing or annualizing such items to reflect more accurately their annual impact; or to give effect to any other item which should have been included or excluded during the historic test year. In the instant proceeding, the Company's Application was based on actual operating experiences for the twelve months period ending September 30, 1980, and included financial and operating information for that period. As previously indicated, the Commission's Order No. 81-20 established the test year in this proceeding to be the twelve months period ending December 31, 1980, and required the submission of the appropriate information to reflect that determination. The Commission Staff and the parties of record herein likewise offered their evidence generally within the context of that same test period. In consideration of the relative proximity of the commencement of this proceeding, the Commission finds the twelve months ending December 31, 1980, to be the reasonable period for which to make our ratemaking determinations herein.

V.

McGUIRE NUCLEAR STATION UNIT I

The Company proposed in its Application to include in the cost of service the operating cost and the return on investment associated with Unit No. 1 of the McGuire Nuclear Station (hereinafter "McGuire"). This proposal constitutes a significant portion of the rate relief requested by the Company. Because the Commission determined that additional data relating to the McGuire operations was necessary, the Commission granted the Company's request to recess the evidentiary hearing until December 14, 1981, by Order No. 81-708 issued October 23, 1981. Based on the evidence in the record of this proceeding, the Commission has determined that the fixed investment in McGuire should be included in the Company's rate base and that the return on that investment and the operating cost of McGuire should be included in the cost of service of the Company. Therefore, the Commission again denies the Motion to Dismiss In Part of SCWRO's counsel. Our determination's in this regard is made upon the following considerations.

At the hearing, the Company responded to questions concerning the operation of the McGuire facility. Witness Stimart also presented actual operating and maintenance cost for McGuire. The Company received a full power operating license on July 8, 1981. Since that date the Company has had all personnel necessary for operating the reactor at full power present at the facility and has been incurring operation and maintenance costs, other than fuel, necessary for full power operation. Records of these operating and maintenance costs have been compiled by the Company since July 18, 1981, and Witness Stimart set forth three months operating expenses. Tr., Vol. 19,

Stimart, pp. 2-4. Staff witness Price also included post test year expenses and viewed them as ascertainable, known and measurable. Tr., Vol. 19, Price p. 53. Therefore, although the historic test year for the instant proceeding ended December 31, 1980, the Commission is convinced that the investment and costs can be and have been sufficiently updated to satisfy the "known and measurable" test, as defined by the South Carolina Supreme Court. Southern Bell Telephone and Telegraph Company v. Public Service Commission of South Carolina, 270 S.C. 590, 244 S.E.2d 278 (1978). That is, these adjustments were known and measurable at the time of the hearing, and their inclusion will establish the actual rate base and net operating income, as well as the proper relationship among costs and investments.

McGuire is operational and has been rendering service to the consuming public since last October, 1981. Tr., Vol. 18. Lee p. 8. McGuire was synchronized with the Company's electrical transmission system on September 12, 1981 and on September 13, 1981, McGuire delivered net kilowatt hours into the Company's system. McGuire had generated a total of 414,711,000 KWH for the Duke System through December 2, 1981. From October 21 through December 2, 1981, the unit had an availability factor of 70%. In addition to meeting the power demands of the Company's customers, McGuire provides adequate reserves and reliability to the Company's System. Tr., Vol. 18, Lee, pp. 6, 8.

A utility's property is to be included in rate base if the property is used and useful. See, Southern Bell, supra, at 283. Whether property is used and useful is to be determined by using a case-by-case or factual analysis. The Southern Bell decision supports this. There the Supreme Court said that changes in the utility's investment occurring after the test year should be included in rate base as the Court stated:

By the same token, we believe that the Commission should make any adjustments for known and measurable changes in...investments occurring after the test year, in order that the resulting rates will reflect the actual rate base, net operating income and cost of capital. 244 S.E.2d 284.

McGuire has been serving the public and will continue to do so in the future during the period when the rates fixed in this proceeding are in effect. Accordingly, the Commission finds and concludes that McGuire is sufficiently "used and useful" and should be included in the Company's rate base in setting rates in this proceeding.

The Consumer Advocate argues that the revenues of the Company should be increased by \$6.27 million to account for the post year customer growth. The Commission, as discussed infra, already allows for increase in revenues due to customer growth. Hearing Exhibit No. 31. The effect of customer growth in sales revenues is to lower Duke's revenues required by the amount attributed to customer growth. The Commission finds and concludes that an additional customer growth amount of \$6.27 million is not supported by the evidence and therefore rejects same. See, Section X, infra, for discussion.

VI.

RATE BASE

Pursuant to S. C. Code Ann., § 58-27-180 (1976), the Commission has the authority after hearing to "ascertain and fix" the value of the property of an electrical utility. In the context of a ratemaking proceeding, such authority is exercised in the determination of the electrical utility's rate base.

For ratemaking purposes, the rate base is the total net value of the electrical utility's tangible and intangible capital or property value on which the utility is entitled to earn a fair and reasonable rate of return. The rate base, as allocated or assigned directly to the Company's South Carolina retail electric operations, is composed of the value of the Company's property used and useful in providing retail electric service to the public, plus construction work in progress, materials and supplies, an allowance for cash working capital, and property held for future use. The rate base computation incorporates reductions for the reserve for depreciation and amortization, accumulated deferred income tax (liberalized depreciation) and customer deposits. In accordance with its standard practice, the Accounting Department of the Utilities Division of the Commission Staff conducted an audit and examination of the Company's books, and verified all account balances from the Company's General Ledger, including rate base items, with plant additions and retirements. On the basis of this audit, the pertinent hearing exhibits, and the testimony contained in the record of the hearing, the Commission can determine and find proper balances for the components of the Company's jurisdictional rate base as well as the propriety of related accounting adjustments.

A. Plant in Service

The Commission has traditionally used the accounting methodology recognized as "original cost less depreciation" in the determination of the value of an electrical utility's plant in service. The record of the instant proceeding presents no justification for a departure from this methodology.

As previously discussed fully in Section IV, supra, the Commission is of the opinion and so finds that an adjustment to end of test year plant in service should be made in the nature of an inclusion of the cost to complete McGuire Unit No. 1. A corresponding adjustment will be made to reduce construction work in progress. See, supra at III. Therefore the cost of completion of McGuire of \$962,692,000 will be included in the plant in service for the total Company with appropriate allocation to the rate base attributed to South Carolina retail electric operations.

The Commission Staff calculated the gross plant in service attributable to the Company's South Carolina retail electric operations to be \$1,148,529,000. The Commission finds that with the appropriate adjustment for the inclusion of McGuire attributed to the Company's South Carolina retail electric operations that the Company's gross plant in service for South Carolina retail operations to be \$1,398,921,000. The Commission, in so finding, has adopted the allocation factor of the Commission Staff to allocate the appropriate plant in service of the total Company to the Company's plant in service for its South Carolina retail electric operations. The Commission has reviewed the allocation factor proposed by the Company and the Commission Staff and finds the factor used by the Staff to be fair and reasonable and therefore concludes that the factors of the Staff are appropriate to be used throughout this ratemaking proceeding and will be so used.

B. ACCUMULATED DEPRECIATION AND AMORTIZATION

In determining the proper rate base for electrical utilities, the Commission uses the gross plant in service dedicated to providing public service as reduced by the accumulated depreciation and amortization. The accumulated depreciation and

amortization represents that portion of the utility's depreciable properties which has been consumed by previous use and recorded as depreciable property. The "per books" accumulated depreciation and amortization allocated by the Commission Staff to the Company's South Carolina retail electric operations was \$427,310,000.

The Commission Staff reduced the Company's rate base by increasing accumulated depreciation, allocated to the Company's South Carolina retail electric operations by \$1,661,000 to reflect the annualized depreciation expense based on plant in service on December 31, 1980. Hearing Exhibit 20 p. 17. The Company objected to this adjustment made by the Commission Staff stating that such adjustment prevents the Company from recovering the total investment in plant. The Commission has reviewed this adjustment and the arguments against making it set forth by the Company and finds such an adjustment fair and reasonable and therefore approves same.

The Commission Staff also reduced the rate base of the Company's total operations by increasing the accumulated depreciation reserve by \$35,626,000 or \$9,567,000 for South Carolina retail electric operation. This adjustment was made necessary due to the inclusion of the cost to complete McGuire Unit No. 1 in gross plant in service. Hearing Exhibit No. 31 p. 1.

The Commission, after a thorough review of the adjustments proposed by the Commission Staff, and the arguments of the Company, approves the Staff's adjustment. The Commission, therefore, finds that the proper figure for the Company's accumulated depreciation and amortization, as allocated to the Company's South Carolina retail operations, is \$438,538,000.

The gross plant in service of \$1,398,921,000, less the accumulated depreciation and amortization of \$438,538,000 results in a net plant in service for the Company's South Carolina retail electric operations of \$960,383,000.

C. Construction Work in Progress

Pursuant to the Commission's Directive of November 13, 1974, which, inter alia, identified the rate base items considered appropriate by the Commission for electrical utilities, the reasonable and necessary costs of construction of utility plant not yet in service may be considered as a proper rate base item. Such costs are described as "construction work in progress" (hereinafter "CWIP"). This Commission has uniformly allowed CWIP to be included in an electrical utility's rate base, with an offset adjustment to total income for return by that portion of the allowance for funds used during construction (hereinafter "AFUDC") and income tax credit, which are attributable to the CWIP at the end of the test period.

In the instant proceeding, the Consumer Advocate proposed to exclude currently CWIP from the Company's rate base, taking the position that the cost of financing new construction should instead be provided for by the capitalization of AFUDC.²² Tr., Vol. 14, Hartikka, pp. 22-26. The Company's position on the exclusion of CWIP in rate base was that it would be financially impossible to undertake construction of large, long lead time generation without CWIP in the rate base. Tr., Vol. 1, Lee, p. 64. The Commission has thoroughly reviewed the arguments set forth by the Consumer Advocate and is not convinced that a departure or modification of its previously adopted treatment for the inclusion of CWIP in the rate base herein for ratemaking purposes for the Company's South Carolina retail electric operations is warranted. Therefore, the Commission finds that the proposal of the Consumer Advocate

²² The Consumer Advocate based his adjustments on the Company's exhibits filed reflecting the North Carolina method of treatment of CWIP.

to exclude CWIP from rate base in this proceeding should not be adopted.

The Company proposed to include in rate base CWIP incurred expenditures relating to generating plants under construction without an AFUDC offset to income. Tr., Vol. 8, Stimart, pp. 76-77. The Company argues that by eliminating the AFUDC offset to income, the Company would be given the opportunity to currently recover the cost on its investment. The Company states that many state Commission's allow CWIP in rate base without a AFUDC offset to income. The Commission finds, after consideration of the position taken by the Company, that a departure from its previously adopted policy of allowing an AFUDC offset to total income for return where it includes CWIP in rate base is unwarranted at this time. Therefore, the Commission will allow CWIP in the Company's rate base with an offset to total income for return for AFUDC in this proceeding.

The Commission Staff adjusted the CWIP "per books" figure for the total Company operations of \$3,114,807,000 by reducing that figure by \$896,202,000. Hearing Exhibit No. 31 p. 1. The \$896,202,000 was the amount of CWIP attributed to McGuire Unit No. 1. Since the cost of completing McGuire Unit No. 1 was included in the plant-in-service of the Company for the purpose of this proceeding,²³ the per books CWIP must be reduced by the amount in CWIP for the unit. Therefore, the Commission finds such adjustment as proposed by the Commission Staff appropriate for the purposes of this proceeding and adopts same.

²³ See, page 24, supra.

The Commission Staff also reduced CWIP to reflect the Sale of 75% of Catawba Unit No. 1 and 25% of Catawba Unit No. 2. This adjustment resulted in a reduction of CWIP for total Company operations in the amount of \$635,887,000. The Commission finds and concludes that due to the sale by the Company of 75% of Catawba Unit No. 1 and 25% of Catawba Unit No. 2, that the adjustment proposed by Staff is fair, reasonable and appropriate for the purposes of this proceeding and is therefore adopted.

With the herein approved adjustments to the total Company's operation "per books" CWIP, and the appropriate allocation to the Company's South Carolina retail electric operations, the Commission has determined that the proper figure for the Company's South Carolina retail electric operations CWIP is \$410,014,000.

D. Materials and Supplies

The Commission has traditionally considered "materials and supplies" to be a proper item to be included in an electric utility's rate base. One significant element of this generic item is the fuel supply inventory. In prior ratemaking proceedings, fuel stocks have been adjusted by increasing or decreasing this account by the dollar amount representing the Commission's determination of the reasonable capital outlay for an adequate supply inventory. That adjustment is based on the uncontroverted fact that the Company must expend considerable capital for fuel stocks to secure a reliable supply for the provision of adequate service. Since the costs of the inventory are not recovered until after the fuel is burned, the Company is permitted to earn a return on this inventory item, normalized to reflect test year costs.

The "per books" amount for the total Company operation for materials and supplies was \$209,476,000. Hearing Exhibit No. 20 p. 17.

The Commission Staff proposed to increase this "per books" amount for materials and supplies by \$8,792,000. This adjustment was made by the Commission Staff in order to reflect a ninety day supply of coal inventory at end of test period cost. The Commission finds such adjustment fair and reasonable and necessary in order to be consistent with past orders of the Commission where materials and supplies was reduced due to a supply of coal on hand in excess of a 90 day supply.²⁴ Therefore, the adjustment as proposed by the Commission Staff is adopted herein for the purposes of this proceeding.

The effect of the adjustment proposed by the Commission Staff, and adopted herein by the Commission, results in an increase in the Company's rate base. With the adjustment adopted herein and after the proper allocation of the total Company's material and supplies as adjusted to its South Carolina retail electric operation, the Commission finds and concludes that the figure of \$58,192,000 is the appropriate amount to be included in the Company's South Carolina retail electric rate base for ratemaking purposes in this proceeding.

E. Working Capital Allowance

The Commission has normally considered an allowance for working capital to be an appropriate item for inclusion in the rate base of an electric utility. By permitting a working

²⁴See, Order No. 80-474, supra, at 26-27.

capital allowance, the Commission acknowledges the requirement for capital outlay related to the routine operations of the utility.

Both the Company and the Commission Staff utilized the formula prescribed in the Commission's Directive of November 13, 1974, for the computation of the working capital allowance, however, the two parties reached slightly dissimilar results. The Commission Staff proposed a computation of the working capital allowance of \$20,081,000, allocated to South Carolina Retail electric operations, computed as shown in Hearing Exhibit No. 31 p. 4.

The Consumer Advocate proposed to reduce the working capital allowance a total of \$20,615,000 allocated to South Carolina Retail electric operations. This reduction, in part, is due to the use of a lead-lag study to compute the level of working capital for the Company. The Commission has in previous proceedings, rejected the substitution of the "lead-lag" study for the previously approved and adopted methodology for the derivation of the working capital allowance a utility's rate base. Based upon a review of the evidence presented in this proceeding, the Commission is not inclined to adopt that method proposed by the Consumer Advocate and thereby abandoned the methodology we have found fair and reasonable for the computation of the working capital allowance in previous ratemaking proceedings.

The Consumer Advocate also contends that accrued interest on long term debt should be considered as a source of working capital and that the amount of accrued taxes be considered available for working capital and an offset to working capital be made based upon the same level of taxes allowable for operating expense purposed. Tr., Vol. 14, Hartikka, pp. 27-28; 30.

The Commission has thoroughly reviewed these proposals of the Consumer Advocate and, in the ultimate analysis still consider the methodology described in our directive of November 13, 1974, to constitute the preferable computation of the working capital allowance. Consequently, the Commission does not adopt the proposals of the Consumer Advocate. Therefore, the Commission rejects the proposed reduction of \$20,615,000 to the working capital as advocated by the Consumer Advocate.

In conclusion, in light of our approval of the adjustments to the Company's test year operating and maintenance expenses in Section X, infra, and as a consequence of our determinations herein, the Commission considers that the appropriate figure for the working capital allowance, pertaining to the Company's South Carolina retail electric operation, is \$20,081,000 as computed by the Commission Staff.

F. Property Held for Future Use

The Company and the Commission Staff proposed to adjust the Company's rate base by a figure of \$1,536,000, to represent property held for future use, as allocated for the Company's South Carolina retail electric operations.

The Consumer Advocate proposed to exclude plant held for future use from the Company's rate base. The Commission considered the issue of allowing plant held for future use in rate base in the last general ratemaking proceeding involving the Company.²⁵ The Commission concluded since the property had been purchased for utility operations, that it should be

²⁵ See, Order No. 80-474, supra, p. 30-31.

included in the rate base.²⁶ The Commission finds and concludes, after full consideration of the proposal and arguments presented by the Consumer Advocate, that the plant held for future use is being held for future utility purposes and should be included in the Company's rate base. See, Southern Bell, supra, pp. 283-284.

The Commission therefore finds that the inclusion of \$1,536,000 in the Company's rate base allocated to its South Carolina retail electric operations is reasonable and warranted.

G. Accumulated Deferred Income Taxes

The accumulated reserves for liberalized depreciation constitute a form of cost-free capital, and, consequently, an element upon which the Commission feels investors are not entitled to earn a rate of return. The Company and the Commission Staff recommended that the Commission reduce the South Carolina retail electric rate base by \$101,260,000 for accumulated deferred income taxes.

The Consumer Advocate proposed to reduce rate base to reflect deduction of deferred taxes related to accelerated amortization. Witness Hartikka erroneously calculated the amount of deferred taxes to be deducted from rate base by not recognizing that amounts of deferred taxes related to accelerated amortization have already been included in the Company's reduction of rate base. As Witness Stimart testified:

"The components of the Company's amounts are found in the Company's FERC Form 1, more specifically on pages 227A, 227C, 227E and 214D, lines 1, 2 and 3." (Tr., Vol. 16, Stimart, p. 5).

²⁶
Id. pp. 29-30.

Mr. Stimart also noted that:

"In determining the Company's calculation, Mr. Hartikka must have overlooked the fact that in addition to deferred tax credits, the Company has also recorded on its balance sheet deferred tax debits, all of which net to the amount shown by the Company." (Tr., Vol. 16, Stimart, p. 5).

To accept the Consumer Advocate's proposal would penalize the Company by improperly reducing rate base twice for deferred taxes related to accelerated amortization.

Based upon the above, the Commission is of the opinion and so finds that the Consumer Advocate's proposal should not be adopted herein. Therefore, the Commission finds and concludes that the appropriate amount to be utilized herein is the figure of \$101,260,000, as proposed by the Company and the Commission Staff, allocated to the Company's South Carolina retail electric operations.

H. Customer Deposits

The amount representing customer deposits is also considered by this Commission to be an element on which the Company's investors are not entitled to earn a return, and should be excluded from the Company's rate base. The Commission finds that the rate base should be reduced by the amount of \$1,763,000, as proposed by the Company and by the Commission Staff. The Commission has treated the interest on customer deposits as an operating expense in computing the Company's rate of return.

I. Miscellaneous Proposed Adjustments

The Consumer Advocate contends that the balances of certain operating reserves should be deducted from the Company's rate base. Hearing Exhibit 26, Sch. 3; Tr., Vol. 14, Hartikka, pp. 32-33. The Company resisted such an adjustment. Tr. , Vol. 8, Stimart, pp. 95-97.

The Commission has previously rejected the ratemaking treatment proposed by the Consumer Advocate for operating reserves.²⁷

The Commission's rejection of the treatment as proposed by the Consumer Advocate has been upheld by the Courts of our State.²⁸ The Commission is not convinced by the evidence in the record before us that a departure from our previously adopted, and approved by the Circuit Court, treatment of this issue is warranted.²⁹ Consequently, the Commission is of the opinion and so finds, that the proposed reduction to the Company's South Carolina retail electric rate base should not be allowed.

J. Original Cost Rate Base

The Commission finds the Company's rate base for its South Carolina retail electric operations herein adjusted and determined by the Commission to be appropriate for the purposes of this proceeding, is set forth as follows:

²⁷See, Order No. 80-375 and Order No. 79-730, issued in Docket Nos. 79-196-E and 79-197-G at pp. 38-39 and pp. 25-26, respectively. Also, see, Order No. 80-374, supra, at pp. 31-32.

²⁸See, Order of the Honorable Water J. Bristow, Jr. dated November 30, 1981 issued in File No. 80-CP-40-4107, Irvin D. Parker, Consumer Advocate for the State of South Carolina v. South Carolina Public Service Commission, et al., at p. 4, stating "recurring to the suggested error of the inclusion of the operating reserves in the rate base, I find that it is without merit."

²⁹Also, see, Order of the Honorable Walter T. Cox, Jr., dated July 9, 1981, issued in Circuit Court File No. 80-CP-40-8454, Irvin D. Parker, Consumer Advocate for the State of South Carolina v. The South Carolina Public Service Commission, et al.

TABLE C
ORIGINAL COST RATE BASE
December 31, 1980

Gross Plant in Service	\$ 1,398,921,000
Reserve for Depreciation and Amortization	< 438,538,000>
Net Plant	\$ 960,383,000
Construction Work in Progress	410,014,000
Materials and Supplies	58,192,000
Working Capital Allowance	20,081,000
Property Held for Future Use	1,536,000
Accumulated Deferred Income Tax (Lib. Deprec.)	< 101,260,000>
Customer Deposits	< 1,763,000>
TOTAL RATE BASE	\$ 1,347,183,000

VII.

CAPITAL STRUCTURE

Considerable references to the Company's capital structure and to the appropriate capital structure for ratemaking purposes were made in the testimony and exhibits of witnesses for the Company, for the Commission Staff and for the Consumer Advocate.³⁰ The Company proposed an adjustment to the Company's actual capitalization as of December 31, 1980, to reflect the capitalization ratios which are incorporated in the Company's "on-going financial objectives." Tr., Vol. 8, Stimart, pp. 69-70.³¹ The Company likewise proposed that the capital structure include the Company's investment in subsidiaries. The composite effect of the Company's

³⁰The Consumer Advocate's witness Legler adopted the Company's actual capitalization ratios as of December 31, 1980.

³¹See, Tr., Vol. 4, Grigg, pp. 8-9.

adjustments appears in the following table:

TABLE D
CAPITALIZATION - PROPOSED BY COMPANY
December 31, 1980

	<u>Actual</u> <u>AMOUNT</u> <u>(Thousands)</u>	<u>RATIO</u>	<u>Pro Forma</u> <u>RATIO</u>
Long Term Debt	\$2,594,008	49.17%	49.00%
Preferred Stock	712,417	13.50%	13.00%
Common Equity	<u>1,969,140</u>	<u>37.33%</u>	<u>38.00%</u>
TOTAL	<u>\$5,275,565</u>	<u>100.00%</u>	<u>100.00%</u>

(Source: Hearing Exhibit No. 9, p. 2)

The Commission Staff proposed the adoption of the Company's actual capital structure as of June 30, 1981, to exclude current maturities with the outstanding long term debt and to exclude investments in non-utility related subsidiaries from the capitalization. As proposed by the Commission Staff, the adjusted capital structure appears in the following table:

TABLE E
CAPITALIZATION - PROPOSED BY STAFF
June 30, 1981

	<u>AMOUNT</u> <u>(Thousands)</u>	<u>RATIO</u>
Long Term Debt	\$ 2,586,768	48.54%
Short Term Debt	14,000	.26%
Preferred and Preference Stock	704,366	13.22%
Common Equity	<u>2,024,203</u>	<u>37.98%</u>
TOTAL	<u>\$5,329,337</u>	<u>100.00%</u>

(Source: Hearing Exhibit No. 31, Accounting Department, p. 5)

Based upon the record before us, the Commission finds that an "objective" or anticipated capital structure should not be used for ratemaking purposes in this proceeding. The Commission is unconvinced that investors reasonably expect the objectives described by the Company witnesses to be achieved and maintained within the period in which the rates and charges approved herein will remain in effect. As in the Company's last ratemaking proceeding, the Commission continues to consider that an actual capital structure remains a more reliable standard for the determination of a fair overall rate of return.³²

The Commission furthermore finds it reasonable to adopt the Staff's proposal to employ a more recent actual capital structure than the capitalization existing at the end of the test period. Between December 31, 1980, and April 30, 1981, the Company engaged in the issuance and sale of common equity. The Commission considers that the use of the Company's capitalization as of June 30, 1981, which incorporates the effect of such transactions, will be more reflective of the Company's capital structure during the period of time in which the rates approved herein will be in effect. By utilizing an actual capitalization adjusted to June 30, 1981, and thereby making allowances for the more recent financial transactions, the Commission has given consideration to matters beyond the historic test period. The Commission finds such action to be reasonable in allowing the Company the opportunity to earn a fair rate of return and likewise provide the opportunity to maintain that fair rate of return despite the affects of attrition. The Commission has employed similar adjustments in previous decisions to compensate for inflationary pressure.

³²See, Order No. 80-474, supra, p. 36.

The Company's computation of its capitalization excluded short term debt and current maturities. This Commission has traditionally included short term financial obligations in a utility's capital structure for ratemaking purposes. Such instruments have been incorporated in the utility's capitalization and have been identified and illustrated as a separate component of the capital structure.

Table E, supra, reflects the capitalization of the Company and the resultant ratios on June 30, 1981, as adjusted to exclude current maturities of \$44,590,000 from the long term debt and to exclude the Company's investment in non-utility-related subsidiaries from total capitalization. The adjusted capitalization and associated ratios in Table E have been utilized by the Commission in determining a fair rate of return for the Company in this proceeding.

VIII.

COST OF CAPITAL

A. Long Term Debt

This Company, as well as all other regulated utilities, is directly affected by changes in interest rates. As described by the Company's Senior Vice President - Legal and Finance, William H. Grigg, the Company has experienced a constant increase in the embedded cost of long term debt in recent years, which is a function of the issuance and sale of new debt securities at higher prices than the overall average cost of existing debt. (Tr., Vol. 4, Grigg, pp. 46-48) The following table illustrates the recent figures for the embedded cost of the Company's senior capital:

TABLE F

Embedded Cost of Long Term Debt

<u>YEAR</u>	<u>YEAR-END COST</u>
1967	4.09%
1968	4.42%
1969	5.12%
1970	5.83%
1971	6.11%
1972	6.36%
1973	6.67%
1974	7.30%
1975	7.66%
1976	7.74%
1977	7.88%
1978	8.07%
1979	8.48%
1980	9.34%
1981 (June 30)	9.33%

(Source: Hearing Exhibit No. 12, Data Request I,
item 4 and Hearing Exhibit No. 31, Accounting
Department, p. 5)

For the purposes of this proceeding, the Commission considers that the embedded cost of long term debt of 9.33% as of June 30, 1981, should be used in the determination of the cost of total debt and overall rate of return herein.

The record of this proceeding illustrates the interrelationship among investor requirements, the needs of consumers for adequate utility service and the ability to raise significant amounts of capital at the lowest possible cost. This Commission has frequently observed the influence of a utility's rating of its first mortgage bonds on its ability to raise senior capital at competitive interest rates. Generally, lower bond ratings may result in measurably higher costs of capital to a utility, which ultimately increase costs to consumers for many years in the future.

In addition, higher interest rates on long term debt securities operate to reduce the earnings coverage of fixed charges. The fixed charge coverage is perceived by the investor as only one index of financial stability. The Company's debt coverage ratio of earnings to fixed charges, computed by use of the SEC methodology, for the period 1967 through 1980, is demonstrated in the following table:

TABLE G
DEBT COVERAGE RATIO
OF EARNINGS TO FIXED CHARGES

<u>YEAR</u>	<u>RATIO</u>
1967	5.30X
1968	4.50X
1969	3.15X
1970	2.03X
1971	2.13X
1972	2.05X
1973	2.17X
1974	2.06X
1975	2.19X
1976	2.81X
1977	2.71X
1978	2.91X
1979	2.86X
1980	2.65X

(Source: Hearing Exhibit No. 12, Item 15)

B. Short Term Debt

As of June 30, 1981, the Company's short-term debt amounted to \$14,000,000 of the Company's total capitalization, at a cost rate of 5.70%.³³ Consistent with our adoption of the Company's capital structure as of June 30, 1981, the Commission has used a rate of 5.70% for the cost of short-term

³³See, Hearing Exhibit No. 31, p. 5.

debt in its determination of the overall rate of return herein.

C. Preferred and Preference Stock

The Company's embedded cost of preferred stock, which includes the cost of preference stock, increased from 7.07% in 1971 to 8.21% in June 1981. The following table illustrates the embedded cost of the Company's preferred and preference stock from 1971 to June 30, 1981:

<u>TABLE H</u>	
EMBEDDED COST OF PREFERRED STOCK	
<u>YEAR</u>	<u>YEAR-END COST</u>
1971	7.07%
1972	7.20%
1973	7.22%
1974	7.22%
1975	7.69%
1976	7.69%
1977	7.79%
1978	7.91%
1979	7.99%
1980	8.22%
1981 (June 30)	8.21%

(Source: Hearing Exhibit No. 12, Data Request I, Item 7; and Hearing Exhibit No. 31, Accounting Department, p. 5)

For the purposes of this proceeding, the Commission has used 8.21% as the cost for the Company's preferred and preference stock, as reflected in Table H, as of June 30, 1981.

D. Common Equity

One of the principal issues in any ratemaking determination involves the proper earnings to be allowed on the common equity investment of the regulated utility. In this proceeding, the Commission was offered the expert testimony of several witnesses relating to the fair and reasonable rate of return on common equity for the Company. These financial experts presented

detailed explanations of a number of methodological approaches to the determination of the cost of equity for the Company.

This Commission has frequently stated that it adheres to no particular theory or methodology for the determination of a fair rate of return on common equity.³⁴ Rather, the Commission has perceived its function as that of engaging in a careful and reasoned analysis of the abstract theories for application in a practical context. The record of the instant proceeding illustrates the use of several fundamental methods for the determination of the cost of equity capital by the expert witnesses for the Company, the Consumer Advocate and for the Commission Staff. Those methods include the discounted cash flow (hereinafter "DCF") method, the capital asset pricing model (hereinafter "CAPM"), the risk premium approach, the comparable earnings method, and the financial integrity test.

While utilizing a combination of methodologies and deriving somewhat dissimilar results, each cost of capital witness acknowledged that informed judgment was significant in the analysis of the cost of equity and that a purely mechanistic application of any method was meaningless. In recognition of the role of judgement and the interdependence of complementary methodologies for cost of capital estimations, the Consumer Advocate's witness, Dr. John B. Legler, explained that:

It is my opinion that the application of finance theory can provide help and guidance in the decision processs but that the issue of the fair rate of return is still largely judgemental. This is particularly true with respect to the return on equity component of the overall cost of capital. Each finance theory suffers from the necessity of making crucial assumptions requiring judgement in the processs of its application. Although proponents of any particular theory tend to minimize or even overlook the importance of the necessary assumptions, often the assumptions made are crucial to their results.

Tr., Vol. 13, Legler, pp. 30-31.

³⁴See, e.g., Order No. 80-474, supra, p. 42; Order No. 79-730, supra, at pp. 32-33; Order No. 79-230, supra, at p. 36, and the decisions cited therein.

The reliance on judgement was recognized by other cost of capital witnesses in the identification and application of the components of the approaches and in the derivation of the financial results of such methods.³⁵

The following table provides a summary of the recommended estimated returns on common equity of the respective witnesses herein:

TABLE I

Company	Dr. Arthur T. Dietz Charles A. Benore	17.1% to 17.5% 18% minimum
Commission Staff	Dr. Robert Glenn Rhyne	16.5% - 17.5%
Consumer Advocate	Dr. John B. Legler	16.0%

The testimony and exhibits of the financial witnesses for the Company, the Commission Staff and the Consumer Advocate demonstrated an approach to their respective investigations within the parameters of the language of the United States Supreme Court in its decision in Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591 (1944), at 603:

[T]he return to the equity owner should be commensurate with the return on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, as to maintain its credit and to attract capital.

While the independent studies of each witness, either implicitly or explicitly, commenced with those standards, the respective methods employed produced quite different results, thereby presenting the Commission with a range of between 14.4%, the lowest estimate produced in Dr. Rhyne's studies, and

³⁵See, e.g., Tr., Vol. 5, Dietz, p. 90; Tr., Vol. 11, Rhyne, pp. 48-50.

18.6%, the highest estimate made by the studies of witness Benore. In the final analysis, the Commission must appraise the opinions of the expert financial witnesses as to the expectations of investors or the opportunity costs of equity capital in conjunction with the tangible facts of the entire record of the proceeding, including the observable financial condition of the Company. Southern Bell, supra, 244 S.E.2d, at p. 282.

Furthermore, the Commission cannot determine the fair and reasonable return on common equity for the Company in isolation. Rather, the Commission must carefully consider a variety of relevant factors, including identifiable trends in the market relating to the costs of labor, materials and capital; comparisons of past earnings with present earnings and prospective earnings; the prices for which the Company's service must be rendered; the returns of other enterprises and the reasonable opportunities for investment therein; the financial policy and capital structure of the Company and its ability to attract capital; the demonstrable competency and efficiency of the Company's management; the inherent protection against destructive competition afforded the Company through the operation of the regulatory process; and the public demand for growth and expansion which is required to evaluate the construction program for the foreseeable future. The Commission must strike the balance among these complex and interrelated factors in the context of the record herein.

The Commission recognizes the legal principle and the practical necessity that the Company be allowed the opportunity to earn a fair rate of return to enable it to continue to meet its service obligations and to maintain its financial strength to provide for the attraction of capital to finance its construction program. The present and perceivably perspective financial condition of the Company and the investor appraisal of that

condition demonstrate to the Commission that the Company's cost of equity capital for its retail electric operations should be evaluated as somewhat lower than that postulated by the respective witnesses herein, and at a level slightly above that found fair and reasonable in the most recent ratemaking proceeding involving the Company's retail electric operations.³⁶

The record of this proceeding demonstrates that the Company's general financial condition has remained stable since its most recent general ratemaking proceeding in Docket No. 79-300-E. The Company's witness Grigg identified the "external factors" of inflation, interest rates and certain burdensome government regulation which create some concern about the Company's financial posture. Tr., Vol. 5, Grigg, p. 48. The Company has maintained its "A" bond rating and has an actual capital structure with proportions which are relatively close to those expected according to the Company's long term financial objectives. Tr., Vol. 5, Dietz, pp. 57-58.

In its determination of a fair and reasonable rate of return, the Commission maintains the ultimate responsibility of setting the rates to be charged for the utility services provided by the Company. The exercise of that responsibility involves the balancing of the interests of the consumer and the investor. During this proceeding, the Commission heard the testimony of many consumers of the Company's services, articulating a concern about the increasing costs of all forms of energy, including electricity, which create a heavy burden for many

³⁶See, Order No. 80-474, supra, at p. 49, where it was determined that a fair and proper rate of return for the Company fell within the range of 12.5% to 13.0%, and that just and reasonable rates for its retail electric operations would allow the Company the opportunity to earn a rate of return of 12.50%.

residential customers with limited or fixed incomes.³⁷

The Commission must gravely balance the interests of the consumer in regard to the price of utility service with the interests of the same consumer in regard to the reliability and adequacy of the supply of energy. The Commission has maintained these interests paramount throughout this proceeding. The Commission's determinations of the Company's revenue requirements and of the proper allocation of those revenues within the approved rate structure embodied in this Order reflect fairly and equitably the interests of those consumers so graphically expressed in the record before us.

Upon a thorough review of the conclusions reached by each financial and economic witness in this proceeding, as well as upon our consideration of the full evidence in the record before us, the Commission has determined that the additional revenues of \$123,770,000 produced by the proposed rate schedules for the Company's South Carolina retail electric operations, which would generate a rate of return on common equity of 17.57% based on adjusted test year figures, are excessive and unreasonable. That return on common equity and the associated revenues cannot be supported by the evidence in this proceeding.

It, therefore, becomes the Commission's responsibility to set a fair and reasonable rate of return on common equity from which can be derived the lawful rates for the Company for its retail electric operations. This responsibility must be discharged in accordance with statutory and judicial standards, and based upon the numerous factors identified herein, and applied in accord with the informed judgement of the Commission.

³⁷See, generally, Tr., Vol. 17, and Vol. 20.

In light of all relevant issues in the record of this proceeding, the Commission is of the opinion, and so finds, that a fair and proper return on common equity falls within the range of 13.00% to 13.50%, and that a rate of return of 13.00% on common equity produced by additional annual revenues of \$77,063,000 for the Company's South Carolina retail electric operations, as approved infra,³⁸ is fair and reasonable.

The rate of return on common equity herein found fair and reasonable falls below the ranges produced by the respective studies herein. However, the Commission, after weighing the evidence presented on all contested financial issues, is simply not persuaded that the cost of equity capital should be at the levels proposed by the respective witnesses herein. It is axiomatic that one who invests in a business dedicated to the public service must recognize that, as compared with investment in private business, he cannot expect either high or speculative dividends, but only fair and reasonable profits.

The Commission considers the 13.00% to 13.50% range to represent the reasonable expectation for the equity owner, and, therefore, consistent with the standards of the Hope decision. A return within the range found fair and reasonable is sufficient to protect the financial integrity of the Company, to preserve the property of the investor, and to permit the Company to continue to provide reliable service to present and future customers at reasonable rates.

In arriving at a rate of return herein, the Commission is concerned only with the return to be earned on the common equity allocated to that portion of the Company's operations subject to the Commission's jurisdiction in this proceeding. Sales of

³⁸See, Section XI, infra.

electricity on a wholesale basis to other electrical suppliers are subject to the jurisdiction of the Federal Energy Regulatory Commission. The Commission has made its findings based on the jurisdictional South Carolina retail electric operations of the Company, and has not considered any other operations or property.

IX.

RATE OF RETURN

An important function of ratemaking is the determination of the overall rate of return which the utility should be granted. This Commission has utilized the following definition of "rate of return" in previous decisions, and continues to do so in this proceeding:

For regulatory purposes, the rate of return is the amount of money earned by a regulated company, over and above operating costs, expressed as a percentage of the rate base. In other words, the rate of return includes interest on long-term debt, dividends on preferred stock, and earnings on common stock and surplus. As Garfield and Lovejoy have put it "the return is that money earned from operations which is available for distribution among the various classes of contributors of money capital. In the case of common stockholders, part of their share may be retained as surplus."

Phillips, The Economics of Regulation, pp. 260-261 (1969).

The amount of revenue permitted to be earned by the Company through its rate structure depends upon the rate base and the allowed rate of return on the rate base. As discussed in the preceding section of this Order, the primary issue between the regulated utility and regulatory body most frequently involves the determination of a reasonable return on common equity, since the other components of the overall rate of return, i.e., dividends on preferred stock and cost of debt, are fixed. Although the determination of the return on common

equity provides the necessary component from which the rate of return on rate base can be derived, the overall rate of return, as set by this Commission, must be fair and reasonable.

The United States Supreme Court's landmark decision in Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia, 262 U.S. 679 (1923), delineated general guidelines for determining the fair rate of return in utility regulation. In the Bluefield decision, the Court stated:

What annual rate will constitute just compensation depends upon many circumstances and must be determined by the exercise of a fair and enlightened judgment, having regard to all relevant facts. A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risk and uncertainties; but it has no constitutional rights to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time, and become too high or too low by changes affecting opportunities for investment, the money market, and business generally.

262 U.S. at 692-693.

During the subsequent years, the Supreme Court refined its appraisal of regulatory precepts. In its frequently cited Hope decision, supra, the Court restated its view:

We held in *Federal Power Commission v. Natural Pipeline Co.* . . . that the Commission was not bound to the use of any single formula or combination of formulae in determining its rates. Its ratemaking function, moreover involves the making of 'pragmatic adjustments' (cite omitted)... Under the statutory standard of 'just and reasonable' it is the result reached, not the method employed which is controlling (Citations omitted). . . .

The ratemaking process under the Act, i.e., the fixing of 'just and reasonable' rates involves a balancing of the investor and the consumer interests. Thus we stated in the *Natural Gas Pipeline Co.* case, that regulation does not insure that the business shall produce net revenues. (Citation omitted).

But such considerations aside, the investor interest has a legitimate concern with the financial integrity of the company whose rates are being regulated. From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividend on the stock. (Citation omitted). By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

320 U.S. at 602-603.

The vitality of these decisions has not been eroded, as indicated by the language of the more recent decision of the Supreme Court in *In Re Permian Basin Area Rate Cases*, 390 U.S. 747 (1968). This Commission has consistently operated within the guidelines set forth in the Hope decision.³⁹

³⁹See, also, *Southern Bell*, supra, 244 S.E.2d at 280-3.

The record in this proceeding demonstrates that the wholesale operations of the Company generate a lower rate of return than the overall rate of return for the various classes of jurisdictional retail customers.⁴⁰ The Commission herein repeats its interest in the Company's efforts to address that situation, including the institution of ratemaking proceedings before the FERC.⁴¹ As the Commission has demonstrated on several occasions in recent ratemaking proceedings involving its principal jurisdictional electrical utilities, rates cannot, and will not, be approved which have the effect of subsidizing non-jurisdictional operations through earnings derived from utility operations within the Commission's jurisdiction.⁴² It is the overall rate of return of the entire Company that a potential investor analyzes. To the extent that the Company fails to earn a proper return on its non-jurisdictional service, there is a direct, adverse impact on the retail customer. The Commission will expect the Company to continue to take all reasonable steps to reduce the effects of this situation.

The range of the rate of return which the Commission has herein found to be fair and reasonable should enable the Company to maintain and enhance its position in the capital markets. Patently, however, the Company must insure that its operating and maintenance expenses remain at the lowest level consistent with reliable service and exercise appropriate managerial efficiency in all phases of its operations. The Commission has consistently manifested its abiding concern for the establishment and continuation of efficiency programs on the part of its

⁴⁰See, Hearing Exhibit No. 22 (Electric Department), p. 23.

⁴¹See, Order No. 80-474, supra, at p. 53.

⁴²Id., at p. 53.

jurisdictional entities. By our Directive of August 27, 1974, the Commission urged the derivation of cost control studies, the adoption of cost reduction programs, and the elimination and reduction of costs "in all possible ways". The continued awareness of the potential efficacy of such programs and their implementation are consistent with the conscious national and State policies to limit the deleterious effects of inflation.

The Company's witness Lee described the considerable effort made by the Company to reduce its costs of construction and its operation and maintenance expenses. (Tr., Vol. 1, Lee, pp. 67-69) The Company's construction policies and programs have resulted in favorable comparisons with the construction costs of other electrical utilities. In addition, the standards for the measurement of economical generating operations manifest that the Company has generally demonstrated an ability to produce electrical energy in a measurably efficient manner.

This finding is further demonstrated by the analysis presented by the Company's witness Dr. Willard T. Carleton. Dr. Carleton undertook the analysis of the cost of electric power to the Company's South Carolina Residential Customers over the past twenty-six (26) years in terms of its "real"⁴³ or economic implications, and compared trends in such real cost with the economic experience of the Company's shareholders. The overall conclusions produced from the analysis indicate that "for the average South Carolina residential customer of the Company, the real cost declined from the mid 1950's through the 1966-70 period, rose again to around 1975-76 and has been declining since then." Tr., Vol. 8, Carleton, p. 14.

⁴³Dr. Carleton defined the "real" costs of electricity as "the costs of the average bill as a percentage of the average customers income." Tr., Vol. 8, Carleton, pp. 13-14.

The record of this proceeding indicates that the Company's construction programs and its general operations have resulted in tangible benefit to its customers in the form of lower costs for electric service.⁴⁴

The record of this proceeding indicates that the Company has generally undertaken its cost reduction efforts in the spirit of the Commission's Directive and consistent with our previous Orders. Nonetheless, the Commission cannot ignore the effect of the Company's increasing operating expenses. Tr., Vol. 1, Lee, pp. 66, 94. The Company and the parties before us may take notice of the fact that the Commission is not inclined to be completely satisfied with the cost reduction and efficiency programs of any jurisdictional utility. The Commission will continue to expect the Company to design and implement such programs in the future as an index of good management practice in the interests of its customers and of the Company itself. With the full array of its resources at its disposal, the Company should be able to assure us that such programs produce identifiable and measurable results consistent with the provision of economical and adequate service to the Company's ratepayers. The Commission has found a range for the fair and reasonable return on common equity which the Company should be allowed the opportunity to earn, and has herein set rates to produce revenues to reach the lower bound of that range. The Commission considers that effective programs of cost reductions can operate to enable the Company to improve its financial posture and earn a return within the range above that lower limit. The Commission has, therefore, provided to the Company the incentive to continue its efficient practices in engineering and construction similar to that sought by Mr. Lee.

⁴⁴According to the Company's witness Lee, if the Company's costs of constructing generating plants, and its thermal and operating efficiency had been no better than average, its costs of service would have been approximately \$319,000,000 more. Tr., Vol. 1, Lee, pp. 69-70.

Clearly, neither the Commission nor any party to the instant proceeding can responsibly ignore the effects of inflation upon a utility's earnings and rate of return. In addition to the review of the Company's costs of service in the context of this proceeding and our express expectations of efficient and effective management, the Commission considers the accepted regulatory devices of the use of a year-end rate base, including year-end construction work in progress and our previously adopted associated computation of AFUDC, the use of the most recent capital structure, adjustments for customer growth and annualized depreciation, together with adjustments for identifiable and measurable changes in revenues and expenses to combine to represent a reasonable regulatory approach to the earnings erosion attributable to inflation.

The Commission has found that the capitalization ratios as of June 30, 1981, as adjusted, are appropriate and should be used in the instant proceeding. The Commission has likewise found that the respective embedded cost rates for long-term debt of 9.33%, for short-term debt of 5.70% and for preferred and preference stock of 8.21% should be utilized in the determination of a fair overall rate of return. For the purposes of this proceeding, the Commission has herein found the proper cost rate for the Company's common equity capital to be 13.00%.

Using these findings, the overall rate of return on rate base for the Company's South Carolina retail electric operations may be derived as computed in the following table:

TABLE J

OVERALL RATE OF RETURN

	<u>Rate</u>	<u>Cost</u>	<u>Weighted Cost</u>
Long-Term Debt	48.54%	9.33%	4.53%
Short-Term Debt	.26%	5.70%	.01%
Preferred Stock	13.22%	8.21%	1.09%
Common Equity	<u>37.98%</u>	13.00%	<u>4.94%</u>
TOTAL	<u>100.00%</u>		<u>10.57%</u>

X.

ACCOUNTING AND PRO FORMA ADJUSTMENTS

Certain adjustments affecting revenues and expenses were included in the exhibits and testimony offered by witnesses for the Company, the Consumer Advocate, and the Commission Staff. This Order will discuss in detail only those accounting and pro forma adjustments which represented differences in regulatory treatment of the respective items.

A. Purchase and Interchange Power

The Company proposed to normalize its test year purchase and interchange power expense. This adjustment resulted in increasing the test year purchased and interchange power expense for total Company operations by an amount of \$6,645,000. The Commission Staff proposed no adjustment to the Company's expense for purchased and interchange power. During the year 1980, the test-year for the purposes of this proceeding, the Company was in a selling capacity in that Account 555, purchased and interchange power, had a credit balance of \$12,908,000. This balance consisted of fuel and non-fuel expenses. The Company, in its proposed adjustment, is proposing to remove the non-fuel expense of \$6,645,000. Staff Witness Minh Nguyen gave the following reasons why Staff felt that no such adjustment should be made to purchased and interchange power.

First, the expenses that the Company incurred in order to generate the power which was sold to other companies are in the cost of service. In other words, the elimination of the adjustment would provide somewhat of a matching of expense and revenue with regard to Purchase and Interchange Power.

Second, the balance in Account 555 reflected that Duke was a selling Company in five of the last six calendar years....This procedure is consistent with prior decisions of this Commission....

Tr., Vol. 12, Nyuyen p. 5-6.

The Commission agrees with the position taken by the Commission Staff. During the test year the Company was a net seller of power. Five of the last six years resulted in the Company being a net seller. Whether the Company will be a net buyer or seller in coming years is not known at this time. Therefore, the Commission finds that it is reasonable to use the "per books" purchase and interchange power without adjustment.

B. Research and Development Expense

The Company proposed an adjustment of \$2,302,000, for the total Company operation, to operating and maintenance expenses, (wages, benefits, materials, etc.). This increase was to adjust the Company's research and development expense to end of test year level. The amount of the adjustment was to reflect a level of contribution to the Electric Power Research Institute to be made by the Company commencing January 1, 1982. Neither the Commission Staff nor the Consumer Advocate proposed such an adjustment. The expenses as adjusted by the Company will not be paid until 1982, well outside the test period in this proceeding.

The Commission has previously allowed the treatment of research and development expenses for ratemaking purposes when such expenses were actually incurred or paid during the test period under review. The Commission feels that the nature of research and development programs justifies a special consideration for expenditures outside the test year, even though such expenditures may be anticipated and capable of measurement. While participation in reasonable research and development programs may well operate to the prospective benefit of a utility's customers, the character of such programs requires an opportunity for analysis based upon a review of the actual programs and associated expenditures rather than future or speculative ones.

Consequently, the Commission will adopt the position of the Commission Staff and the Consumer Advocate and deny the proposed adjustment of the Company.

C. Advertising Expense

The Commission Staff and Consumer Advocate proposed the reclassification of certain institutional advertising expenses in the amount of \$148,000 for total company operations or \$40,000 as allocated to the Company's South Carolina retail electric operations which the Company had charged to operating accounts. Hearing Exhibit 20 and Hearing Exhibit No. 26. The amount reclassified represented general advertising expenses for purposes other than conservation or information dissemination, and the Commission Staff's and Consumer Advocate's adjustment has the effect of eliminating such expenses for ratemaking consideration.

This Commission has traditionally adhered to a treatment of advertising expenses which allows for ratemaking purposes only the advertising expenses which were incurred during the relevant test year and which were related to energy conservation or information dissemination. The Commission does not consider advertising expenses for institutional purposes to be proper expenses to be borne by the ratepayers of a utility. The Commission consequently finds the Consumer Advocate's and Commission Staff's adjustment to be appropriate for ratemaking purposes herein.

D. Miscellaneous General Expense (Account 930.2)

The Commission Staff and Consumer Advocate proposed an adjustment to the Company's expenses based upon its sample of the Company's expense vouchers for the test period. An amount of \$188,000, for total company operations or \$51,000, as allocated to South Carolina retail electric operations was reclassified from Account 930.2, Miscellaneous General Expense. (Hearing Exhibit No. 20, p. 20.) The Staff's adjustment would have the effect of excluding certain expenses for dues and subscriptions from operating expenses, and removing them from consideration in setting fair and reasonable rates. The Company had proposed

to charge such expenditures as an operating expense in Account 930.2.

The Commission has previously and consistently treated such expense as a "below the line" item which should not be charged to a utility's ratepayers. There is nothing in the record of this proceeding to cause us to reevaluate our traditional determination that such expenses are more properly charged to a utility's shareholders than to its ratepayers. The Commission consequently finds the adjustment made by the Consumer Advocate and the Commission Staff to be reasonable in this proceeding, and adopts same.

E. Adjustment to Operating Supplies and Expenses

The Company proposed to adjust the operating supplies and expenses to end of test year cost levels. This adjustment would increase test year expenses for total Company operations by \$5,437,000.

The Commission has heretofore rejected such an adjustment.⁴⁵ Nothing in the record of this proceeding has persuaded the Commission to depart from that determination. The Commission has approved ratemaking mechanisms which operate to reduce the effects of attrition, which encourage efficiency of operations and which are more identifiable and measurable than the approach proposed by the Company herein. Accordingly, the Commission will adopt the position of the Commission Staff and refuse to allow the adjustment proposed by the Company.

⁴⁵
See, Order No. 80-474, supra, at pp. 64-65.

F. Inflationary Calculation Of Expenses

The Company seeks to adjust its test year operating expense to reflect the result of inflation experienced from January to May, 1981. This adjustment would result in an increase to actual test year expenses for supplies, for total Company operations, of \$8,010,000, and a residual inflationary provision resulted in an increase in operation and maintenance expenses of \$7,678,000 for total Company.

The Consumer Advocate resisted this adjustment. Tr., Vol. 14, Hartikka pp. 34-35. The Commission Staff found these two adjustments not measurable. Tr., Vol. 12, Price p. 29.

The Commission agrees with the position of the Commission Staff and the Consumer Advocate in that these adjustments should not be allowed. The Commission believes that our Order in this proceeding adequately protects the Company against earnings erosion in that we have provided for recognition of costs relating to the McGuire Nuclear Unit No. 1 and in that we have, for the most part, adopted the Company's proposed adjustments to specific operating expenses for known and measurable changes.⁴⁶ The Commission also notes that a large portion of the Company's total revenue requirements are subject to recovery through the base fuel component mechanism. Under these circumstances, the Commission concludes that the Company is adequately protected against foreseeable attrition and that allowing an additional attrition allowance based upon unknown and unmeasurable cost increases, which take

⁴⁶ The Company also proposed an adjustment to wages and salaries due to wage rate increases granted January through June 1981. Finding such adjustment known and measurable, the Commission will allow such adjustment.

place outside the test year is unwarranted. Accordingly, the Commission will disallow the \$8,010,000 and the \$7,678,000 adjustment to operating and maintenance expenses.

G. Adjustment for Expenses of Department
of Public Affairs

The Commission Staff proposed an adjustment for certain operating and maintenance expenses related to the operation of the Company's Department of Public Affairs. The Staff proposed to reclassify to non-operating accounts some \$39,000 which represented an allocated portion of the test period salary and expenses of the head of that Department who was the Company's registered lobbyist. Hearing Exhibit 20, p. 20. The Commission Staff's proposed adjustment was founded on an inability to distinguish with certainty the expenses related exclusively to lobbying activities and those related to other functions of the affected Department.

The Commission has reviewed thoroughly the proposed adjustment, and is of the opinion, and so finds, that the adjustment is reasonable and should be approved for ratemaking purposes herein. The Commission finds that the Company's ratepayers have little influence on the positions and issues advocated by the Company's lobbyist, and that consequently, expenses for lobbying activities should be charged to non-operating accounts, in order that such expenses may be borne by the Company's shareholders rather than by the ratepayers. Where the Company's books and records fail to differentiate adequately the lobbying expenses from other expenses incurred by the person with the formal responsibility for lobbying activities, the Commission considers that the

most appropriate response is to reclassify all expenses charged to that individual.

H. Depreciation on Nuclear Plant

The Consumer Advocate's witness Hartikka objected to the use of a 4% depreciation rate on nuclear plants. This rate was approved by the Commission in its Order No. 80-474, aff'd sub nom. Parker v. South Carolina Public Service Commission, et al., Nos. 80-CP-40-4107 and 80-CP-40-4110 (Richland Co. Common Pleas, filed November 30, 1981). This is also the rate approved by the North Carolina Utilities Commission for the Company and by the Federal Energy Regulatory Commission for Carolina Power & Light Company. Id. p. 57. Witness Stimart testified regarding the 4% depreciation rate. Depreciation is designed to be an "orderly way of allocating the cost over the useful life of the asset." (Tr. Vol. 16, Stimart, p. 30). In arriving at the nuclear plant rate, useful life is determined by subtracting the construction period (10 years) from the life of the license (40) years. The result is a 30-year period over which cost is allocated.

The amount allocated is the sum of the original cost plus the cost of decommissioning. In his testimony, Witness Stimart used a decommissioning cost of \$50 million dollars in 1980 dollars, which was based on data developed at various hearings to which he had access, participation in funding methodologies, information developed in the Company's Catawba hearings, and studies of neighboring utilities. (Tr. Vol. 16, Stimart, p. 33). Additionally, Witness Stimart testified on cross-examination regarding a recent National Environmental Studies Project by the Atomic Industrial Forum, Inc., which supported the Company's cost estimate for the recommended method of decommissioning, immediate removal/dismantlement, of a pressurized water reactor. (Tr. Vol. 16, Stimart, pp. 32-33).

Based on this experience, the rates developed for Duke's combined investment on nuclear power plants ranged from 4.06 to 4.31. This range substantiates the 4.0% rate approved previously by the Commission and applied by the Company since 1979.

Witness Hartikka's rationale for a reduction of the Commission's approved depreciation rate for nuclear plant is not persuasive. He objected to the 4% rate because: (1) the prior case was on appeal; and (2) the 4% rate "seemed inconsistent with the amortization scheme for investment tax credits." (Tr. Vol. 14, Hartikka pp. 36-37).

The Commission finds that its previously adopted 4% depreciation rate for the nuclear plant is reasonable and hereby adopts the same for this proceeding.

I. Depreciation on Land and Land Rights

The Consumer Advocate witness Hartikka proposed that the Company's depreciation expense on land rights-of-way of \$259,000 for South Carolina retail operations is a ". . .violation of depreciation accounting principles; only assets of limited duration should be depreciated." (Tr. Vol. 14, Hartikka, p. 36). The Company's method of amortizing the investment in transmission right-of-way was discussed by Mr. Stimart as follows:

"Since this investment relates to assets with no residual value, contrary to Mr. Hartikka, sound depreciation accounting dictates that such investments should be amortized over a reasonable period." (Tr., Vol. 16, Stimart, p. 5).

As stipulated under the FERC Chart of Accounts, Account 404 states as follows:

"....This account shall include charges for amortization of intangible or other electric utility plant which does not have a definite or terminable life and which is not subject to charges for depreciation expense." Conservation of Power & Water Resources, Parts 0 to 149, Chapter 1, Part 101, pp. 356, 404. Current regulations issued by the FERC.

The Commission finds that the depreciation policy of the Company is appropriate for ratemaking purposes and finds that the Consumer Advocate's proposal should not be accepted for purposes of this proceeding.

J. Investment Tax Credits Relating to the
Nuclear Station

Consumer Advocate proposes that a ratable amortization of investment tax credits relating to the McGuire nuclear station, calculated by Witness Hartikka to be \$241,000 for South Carolina retail operations, be recognized as a credit to the current revenue requirement. Tr., Vol. 14, Hartikka, p. 39. The Company resisted such an adjustment, stating that its policy is to begin amortization of investment tax credits in the year following the year in which the related asset is placed into service. Tr., Vol. 8, Stimart, p. 86.

The Commission finds that fairness and consistency requires that this small adjustment, which has the effect of reducing revenue requirements, be made if we are to make all of the other adjustments necessitated by the advent of McGuire. The Company was unable to demonstrate that its policy with respect to amortization of investment tax credits is mandated either by generally accepted accounting principles or by the Internal Revenue Code. It appears, therefore, that the Company's policy is purely voluntary and that we need not adhere to it for ratemaking purposes.

Accordingly, we shall recognize a ratable portion of investment tax credits relating to the McGuire nuclear station as a determinant of current revenue requirements. Hearing Exhibit 26, WP13.

K. Fuel Expense

The Consumer Advocate adjusted South Carolina KWH sales for weather and customer growth and multiplied this adjusted KWH sales by the fuel clause base charge to calculate fuel and purchased power expense for the test period. (Hearing Exhibit 26, p. 6). Using the fuel clause basic charge to determine the Company's fuel costs during the test period is not reflective of actual costs experienced during the 12 months ending December 31, 1980. The fuel clause basic charge changes every six months based on an estimated fuel expense. Using the fuel clause to determine test year expenditures is basing test year expenses for fuel on an estimate rather than on actual costs experienced which would be more reflective of fuel expense to be incurred while the proposed rates are in effect.

The Commission therefore finds that the proposal by the Consumer Advocate to synchronize fuel clause revenues with allowable fuel costs is inappropriate and should not be adopted for this proceeding.

L. Additional Revenue for Post Test Year Growth

The Consumer Advocate, through cross-examination of Company witness Stimart and Staff witness Price, introduced into the record calculations comparing 1980 and 1981 KWH sales and KWH revenues. From this data the Consumer Advocate attempted to extrapolate a "revenue growth adjustment" that the Commission should consider in addition to those adjustments already in the record, the inference being that if the Commission includes McGuire Unit No. 1 in the cost of service, then it should likewise increase revenues by \$6,270,000. (Tr., Vol. 19, Stimart, pp. 17-24).

Company witness Stimart stated that a monthly comparison of 1980 and 1981 for the more current months showed a decline in KWH sales from 1980 to 1981, rather than a growth. Also, the Company's case was predicated on superimposing McGuire Unit No. 1 on the operating levels that existed for the test year ended December 31, 1980. (Tr. Vol. 19, Stimart pp. 17-19).

Finally, the record clearly shows that both the Company and the Staff have already adjusted the 1980 actual experience for customer growth. The Staff on its alternate Exhibit A increased net operating income for return by \$1,601,000 for the total increase requested by the Company. Therefore, the Commission finds that adequate consideration has been included in the accounting adjustments submitted by the Company and the Staff as to the determination of the proper level of revenue for inclusion in the cost of service determination.

Therefore, the Commission finds that the adjustment as proposed by the Consumer Advocate should not be adopted for the purposes of this proceeding.

M. Amortization of Excess Deferred Taxes

The Consumer Advocate proposes that a credit of \$1,073,000 be made to Duke's claimed provision for deferred taxes to effect a 3-year amortization of deferred taxes provided when a marginal federal corporate income tax rate was 48% rather than the current 46%. Tr., Vol. 14, Hartikka, p. 39. In effect, the Consumer Advocate's witness maintains that the Commission should recompute the Company's deferred taxes at a 46% rate, and then reduce the cost of service of the next three years by the difference between the taxes actually deferred at the 48% rate and the recomputed taxes.

The Commission has previously rejected this approach advanced herein by the Consumer Advocate.⁴⁷ We are not convinced that the proposed adjustment here conforms to generally accepted accounting principles or to reasonable regulatory accounting.

Deferred taxes are created by timing differences of transactions affecting taxable income in one period which enter into the determination of accounting income in a subsequent period. Essentially, deferred tax accounting provides for the determination of taxes on the basis of the applicable rates in effect at the time of the origin of the timing difference, and are not adjusted for subsequent changes in tax rates. The tax effects of transactions which reduce taxes currently payable are treated as deferred credits; the tax effects of transactions which increase taxes currently payable are treated as deferred charges. The amortization of deferred taxes to income tax expense in future periods depends upon the nature of the transactions.

⁴⁷ See, Order No. 80-474, supra at pp. 58-59 and citations therein.

The Commission's previously approved and implemented rate base treatment of the reserve for accumulated deferred federal income taxes operates to return the surplus in the reserve account to the effected ratepayers over the life of the asset which gives rise to the deferral. The Commission considers, and so finds, that our previously adopted practice continues to be appropriate for ratemaking purposes and that the proposed adjustment of the Consumer Advocate should not be approved.

N. Adjustment to Income Taxes for
Calculation of Interest Expense Deduction

The Company and the Commission Staff made the calculation of interest expense by multiplying the weighted cost of debt capital times the Company's rate base after reducing the rate base by the amount of accumulated deferred investment credit. The Consumer Advocate did not so reduce the rate base of the Company in his calculation. The Commission has thoroughly reviewed the calculations as proposed by the parties and finds that the calculation as computed by the Staff based on the capitalization ratios as of June 30, 1981⁴⁸ is fair and reasonable and should be adopted for the purposes of this proceeding.

⁴⁸See, Section VII.

O. Customer Growth

The Company and the Commission Staff, proposes adjustments to reflect increased KWH sales and related expenses attributable to customer growth during the test period. Hearing Exhibit No. 31 p. 1. The adjustment for customer growth is intended to incorporate changes in KWH sales and related expenses to reflect the Company's operation as of the end of the test period. This Commission has consistently approved adjustments for customer growth to conform as nearly as possible a utility's operations with the prospective period during which rate adjustments would be effective.

The Company's computation of the adjustment for customer growth computes increases in customer growth by class of customer. The Commission Staff's calculation of the effect of customer growth was undertaken in accordance with the methodology previously adopted by this Commission for ratemaking purposes and consistently applied by the Staff.

Based upon the record of this proceeding, the Commission is of the opinion, and so finds, that the methodology employed by the Staff should be approved in this matter. As a consequence, the Company's test year net operating income for return, as adjusted herein, will include an amount for customer growth of \$1,319,000 for South Carolina retail operations as computed by the Staff.

P. Weather Normalization

The Company proposed an adjustment to the Company's test year revenues to reflect the effect of weather on the Company's sales. Tr., Vol. 15, Stimart, p. 90.

The Commission has tended to regard proposed adjustments for weather normalization with increasing disfavor. As the

Commission has observed in rejecting proposed revenue and expense adjustments for weather normalization:

Furthermore, in setting rates for prospective applications, the Commission must be assured that adjustments to test year information incorporate as much precision as possible to promote maximum fairness to the Company and to its ratepayers. The character and impact of future weather conditions do not lend themselves to sufficiently accurate measurement to lead the Commission to conclude that the Company's proposed adjustment should be allowed.

(Order No. 79-230 issued in Docket Nos. 78-189-E and 77-394-E, IN RE: Application of Duke Power Company, etc. on May 17, 1979 and p. 56). 49/

Based upon the record in the instant proceeding, the Commission is not convinced that the data upon which the adjustments herein are predicated is sufficiently abnormal or measurable to cause us to depart from our demonstrated rejection of such adjustments in more recent proceedings and incorporate the effect of weather in setting rates in this proceeding.

Q. Allowance for Funds Used During Construction

The Commission Staff and the Company submitted the "per books" allowance for funds used during construction (hereinafter "AFUDC") computed in accordance with the Commission's Directive of November 13, 1974, and with the Commission's consistent treatment of this issue. Hearing Exhibit No. 20 p. 17 and Stimarts Exhibit 1 page 6b, Hearing Exhibit No. 9.

Both the Commission Staff and the Company adjusted AFUDC and income tax-credit to end of period CWIP, which is consistent with the previous ratemaking treatment of the Commission.

The Commission Staff proposed the following adjustments to reflect the sale of 75% of Catawba Unit No. 1 and 25% of Catawba Unit No. 2: Reduce AFUDC Equity by an amount of \$31,864,000; Reduce AFUDC-Borrowed by an amount of \$12,713,000 and reduce income tax credit by an amount of \$12,332,000. Tr., Vol. 12, Price p. 29. The Commission has reviewed these adjustments made by the Commission Staff and finds said adjustments appropriate in light of the sale by the Company of 75% of Catawba Unit No. 1 and 25% of Catawba Unit No. 2. Hearing Exhibit No. 20 and 23.

The Company proposed the following adjustments to eliminate AFUDC charged on McGuire Unit No. 2 and Cherokee: AFUDC Equity reduced by \$9,889,000; reduce AFUDC-Debt by an amount of \$3,945,000 and reduce income tax credit by an amount of \$3,827,000. The Commission finds and concludes that since McGuire Unit No. 2 and Cherokee is included in the Company's rate base, that it would be inappropriate to make these adjustments and therefore disallows same.

Both the Commission Staff and the Company proposed to make the appropriate adjustments to AFUDC and Income Tax Credit due to the transfer of McGuire Unit No. 1. The Commission finds and concludes that these adjustments are appropriate. See, Hearing Exhibit No. 31 p. 1 and Stimart, Exhibit 1, p. 6b, Hearing Exhibit No. 9.

The Commission finds and concludes, in light of the above approved adjustments, that the appropriate amounts to be included in AFUDC and Income Tax-Credit as allocated to the Company's South Carolina retail operations is as follows:

AFUDC - Equity	\$ 18,044,000
AFUDC - Debt	7,199,000
Income Tax Credit	6,983,000

R. Operating Revenues and Expenses
for McGuire Unit No. 1

The Commission has previously in this Order discussed fully the Commission's finding that the operating costs of McGuire Unit No. 1 should be included in this proceeding.⁵⁰

Based on the operating costs of the three month periods the Company and Commission Staff proposed the following adjustments to Total Company expenses.

Fuel Expenses	(\$ 73,254,000)
Wages, Benefits,	24,629,000
Materials	
Depreciation	35,626,000

The Commission after a review of these adjustments, finds the same fair and reasonable and adopts same.

The Commission Staff also proposed to decrease Total Company revenues by \$76,427,000 due to the addition of McGuire Unit No. 1, and proposed to make the appropriate adjustments to General and Income Taxes. The Commission has reviewed these adjustments and find the same reasonable and that they should be allowed for ratemaking purposes in this proceeding. Therefore, the following additional adjustments are approved herein as being fair and reasonable:

Revenues	(\$ 76,427,000)
General Taxes	3,612,000
Income Taxes - State	
and Federal	(45,966,000)

S. Other Adjustments

The Commission Staff proposed to adjust State and Federal income taxes to reflect the effect of the Commission Staff's revenue and expense adjustments. The Commission has considered

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See, Section V, supra.

and adopted the Commission Staff's tax adjustments for the purposes of this proceeding, as well as the effect of the other adjustments adopted herein. All other adjustments to, or treatment of, revenues, expenses, or rate base items proposed by the Commission Staff in its presentation, not specifically addressed herein, have been reviewed by the Commission and found reasonable. Any other adjustments proposed by any party inconsistent therewith are herein found unreasonable or inappropriate for ratemaking purposes and are hereby denied.

T. Allocation of Total Company Operation
to South Carolina Retail
Electric Operation

The Company and the Commission Staff differed as to the factor to be used in their allocation of the total Company revenues and expenses to the Company's South Carolina retail electric operation. Such allocation of course, is necessary for the Commission to set rates for South Carolina retail electric customers. The Commission has reviewed both the Company's and the Commission Staff's factors used in making this allocation and finds that the Commission Staff's factor is fair, reasonable and appropriate to be used in this proceeding. Consequently, the Commission adopts the factors used by the Commission's Staff for the purposes of this proceeding.

XI.

REVENUE REQUIREMENTS

The Company's total income for return on its South Carolina retail electric operations after accounting and pro forma adjustments is \$102,929,000, which, if divided by the original cost rate base of \$1,347,183,000, as computed in Table C,supra, results in a return on rate base of 7.64%, as of December 31, 1980.

In order to achieve an overall rate of return on jurisdictional operations of 10.57%, which we have found to be fair and reasonable for the test period, in accordance with the reasons expressed herein, the Company would have required an amount of \$142,349,000 total income for return on its South Carolina retail electric operations, produced by additional gross revenues of \$77,063,000. Based on the Company's Application, the Commission is actually approving herein additional gross revenues of \$56,968,000 of the \$103,675,000 requested. The \$77,063,000 is of the \$123,770,000 which the Commission Staff calculated to be the effect of the proposed increase. See, Hearing Exhibit No. 31. p. 1. The difference of \$20,095,000 in gross revenues results from the Commission Staff's calculating the effect of the proposed increased and the additional revenue requirement as if McGuire Unit No. 1 was operating during the entire test period and taking into account the additional revenues created thereby. However, had the rates herein approved been in effect during the actual unadjusted test year ending December 31, 1980, they would have actually produced additional gross revenues of \$56,968,000. Had the rates proposed by the Company been in effect during the actual unadjusted test period, they would have produced additional gross revenues of \$103,675,000, since McGuire Unit No. 1 was not in operation during that period.

Total income for return, both before and after the approved increase in the Company's revenues, as found by the Commission, is illustrated in the following table:

TABLE K

TOTAL INCOME FOR RETURN

<u>BEFORE RATE INCREASE</u>	<u>SOUTH CAROLINA RETAIL</u>
Net Operating Income for Return	\$69,856,000
Customer Growth	847,000
Allowance for Funds Used During Construction	25,243,000
Income Tax-Credit	<u>6,983,000</u>
TOTAL INCOME FOR RETURN	<u>\$102,929,000</u>
 <u>AFTER RATE INCREASE</u>	
Total Before Increase	\$102,929,000
Approved Increase (net of Taxes)	38,948,000
Customer Growth on Approved Increase	<u>472,000</u>
TOTAL INCOME FOR RETURN	<u>\$142,349,000</u>

The revenue requirements found herein are those found reasonable for the Company's South Carolina retail electric operations and which the Commission thereby finds appropriate for the test period, in recognition of the prospective application of the rates so approved. The Commission's approval of rates designed to meet the Company's revenue requirements is predicated upon a full review of the entire spectrum of issues presented in this proceeding and is thereby predicated upon the evidence in the record within the applicable legal parameters.⁵¹

⁵¹
See, e.g., Federal Power Commission v. Hope Natural Gas Company, supra; Southern Bell, supra, and S. C. Code Ann., §§ 58-27-10 et seq. (1976).

XII.
ALLOCATION OF REVENUES

The revenue requirements of the Company having been determined,⁵² the Commission is also concerned with the determination of the specific rates and the development of the rate structure that will yield the required revenues. It is generally accepted that proper utility regulation requires the exercise of control over the rate structure to ensure that equitable treatment is afforded each class of customer.

The Commission has traditionally exercised its statutory responsibility to provide for "just and reasonable" rates, pursuant to S. C. Code , § 58-27-810 (1976) by the recognition and implementation of the objective to provide electric utilities a fair opportunity to earn a reasonable return which produces the allowed revenue requirement in a manner which equitably apportions the revenue responsibility among the beneficiaries of the utility's service. In discharging that responsibility, the Commission has traditionally identified three pertinent ratemaking criteria:

- a. The revenue requirement or financial-need objective, which takes the form of fair-return standard with respect to private utility companies;
- b. The fair-cost-apportionment objective, which invokes the principle that the burden of meeting the total revenue requirement must be distributed fairly among the beneficiaries of the service;
- c. The optimum-use or consumer rationing objective, under which rates are designed to discourage the wasteful use of public utility services while promoting all use that is economically justified in view of the relationships between costs incurred

⁵² See, Section XI, supra.

and benefits received.

See, e.g. Order No. 80-474, supra, at 85, quoting with approval Bonbright, Principles of Public Utility Rates (1961), p. 292. These criteria are incorporated in our determination's herein.

The Company's Application in this proceeding proposed to increase the Company's approved base rates as of the date of filing, December 29, 1980, by approximately 23.58%, which would have generated additional annual revenues of approximately \$103,675,000. The rate schedules proposed by the Company would result in slight variations in the percentage increase in revenue among the customer classifications: the revenues from the residential class would have increased by 23.71%; the revenues from the general service class would have increased by 23.54%; and the revenues from the industrial service class would have increased by 23.62%.⁵³

The Commission has acknowledged the significance of the allocation of the costs of utility service among the various classes of service:

The costs of supplying electricity to different customers is a function of many factors and variables. The allocation of those costs among the different classes of customers represents a complex task, since many of the total costs of producing energy are common to all customers. The procedure consistently used by this Commission in analyzing utility costs in the context of the review of rate design provides for the assignment of the distribution of total costs among three major categories based on (1) costs that are a function of the total number

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See, Section XI, for discussion of the \$103,675,000 figure and the \$123,770,000 amount.

of customers, (2) costs that are a function of the volumes of the service supplied or energy costs, and (3) costs that are a function of the service capacity of plant and equipment in terms of capability of carrying hourly or daily peak loads or demand costs.

Order No. 80-474, supra, at 87.

In concluding that rates should be based at least partially, on cost of service principles, the Commission reflects the economic theory that regulation is intended to act as a surrogate for competition by insuring that each rate that is charged for electricity is fair and reasonable, that is, that utility rates are maintained at the level of costs, including a fair return on capital. By incorporating cost of service principles, the Commission provides for rates and charges which are designed to promote equity, engineering efficiency (cost- minimization), conservation and stability. (Tr., Vol. 15, Brubaker, p. 9).

The foundation for an equitable and efficient cost-based rate structure is a cost of service study, which accounts for the variables and factors from which are derived the costs of supplying electricity to different classes of customers. The cost of service study not only identifies the total cost of service and thereby measures the profitability of the utility, but also identifies costs by function and class of service, and so measures the compensability of service to any one class. Furthermore, the cost of service study is used to assess, in part, the propriety of any one particular rate structure in the design of rates. In a sense, a cost of service study functions as a regulatory sextant by which the ratemaker can determine the location of the rate of return of each class and the direction and extent to which it should be adjusted to achieve cost-based rates.

The Company's witness Hatley sponsored the utility's cost study and resultant rates and charges. (Tr., Vol. 9, Hatley, pp. 43-57). The cost of service study and its underlying assumptions identified three basic types of costs: customer-related, demand-related and energy-related. Following identification (i.e., classification), the test year revenue, expense and rate base items were allocated according to function or purpose. (Tr., Vol. 12, Nguyen, pp. 64-65). This process is essential to a comprehension of the operation of the utility system which requires the separation of the costs associated with each customer class and with the utility's jurisdictional (i.e., South Carolina retail) operations. In response to the Commission's Order No. 80-474, Duke's Application included rate schedules based on three different cost allocation methods: (1) an allocation of the embedded costs of service based on peak responsibility, (2) an allocation of the embedded costs of service based on the modified average and excess method, and (3) an allocation of the costs of service based on a marginal cost analysis. (Tr., Vol. 9, Hatley, p. 48). The proposed rates and charges, however, were based on the summer system coincident peak responsibility allocation methodology for production and transmission demand related items. (Tr., Vol. 9, Hatley, p. 56). The Commission Staff reviewed the Company's approach and determined that the allocation methodology, which was based on embedded costs, produced accurate and reliable results for ratemaking purposes although the Commission Staff had proposed the consideration of an alternate method (Tr., Vol. 12, Nguyen, pp. 78-79).

Although the Company's witness Hatley provided an exhibit illustrating the results of the application of a marginal cost pricing concept, the cost of service study actually

utilized in the design of the proposed rates and charges was founded on embedded costs. The Commission has consistently relied upon the concept of embedded costs in the implementation of ratemaking precepts. See, e.g., Order No. 80-474, supra, at 75. SCTMA's witness Brubaker articulated the flaws in the application of abstract marginal cost pricing theories to practical electric utility ratemaking. (Tr., Vol. 15, Brubaker, pp. 11-15). This Commission has rejected the use of economic marginal costing theories in the ratemaking context. See, e.g., Order No. 80-474, supra, p. 77; and, Order No. 81-232, issued in Docket No. 80-69-E, dated April 13, 1981, p. 63. There is no evidence in the record of this proceeding to cause the Commission to abandon its well-founded reliance upon the principle of embedded costs for ratemaking purposes.

The Company's cost of service methodology reflected the use of the coincident peak responsibility for the demand allocation of production and transmission facility costs. The Commission has traditionally upheld the coincident peak allocation methodology in previous ratemaking proceedings. (See, e.g., Order No. 80-474, supra, and Order No. 81-232, supra).

The peak responsibility allocation method incorporates the proposition that an electric utility must provide adequate generating capacity to meet the demands of its customers when those customers decide to impose those demands upon the utility's system. Consequently, investment in generation plant is classified as a demand-related cost. (Tr., Vol. 15, Brubaker, p. 16). Furthermore, the use of the peak responsibility method over time has produced rates with "essentially equal" rates of return among the various classes of service (Tr., Vol. 9, Hatley, p. 57), which has been a recognized ratemaking objective of this Commission. See, e.g., Order No. 80-474, supra, p. 87.

The Commission Staff and the Consumer Advocate have recommended that the Commission depart from the coincident peak responsibility allocation method and adopt a variant of an allocation method which incorporates a classification of a portion of the fixed costs related to production on the basis of energy.

The Commission Staff proposed the utilization of the "peak and average" method for the allocation of production facility costs, which recognizes both load magnitude at the time of the system peak and the duration of loads on the system. (Tr., Vol. 12, Nguyen, pp. 66-67). The Consumer Advocate's witness Galligan recommended the use of class loads during each period hour of each monthly peak day be used as the basis for bulk power supply demand related cost allocation. (Tr., Vol. 13, Galligan, p. 158). The Consumer Advocate's proposal was associated with a critique of the continued use of the coincident peak methodology, including the criticism that the peak responsibility method fails to recognize "that portion of generation plant related costs that are related, not to the provision of capacity, but to the provision of cheap energy. . . ." (Tr., Vol. 13, Galligan, pp. 166-167).

The Commission has thoroughly reviewed the positions and arguments as propounded by the parties in this proceeding relative to the issue of the proper embedded cost allocation methodologies. In the ultimate analysis, the evidence leads the Commission to the conclusion that it should not, at this time, depart from the traditional methodology using the coincident peak, i.e. summer peak responsibility method, for allocation purposes. Accordingly, the Commission finds and concludes that the coincident peak allocation methodology is appropriate for this proceeding.

However, the Commission is interested in the peak and average methodology as proposed by the Commission Staff. Therefore, the Company is hereby instructed to file rate schedules under both the coincident peak methodology and the peak and average methodology as proposed by the Commission Staff in its next general ratemaking proceeding.

The Commission has endeavored to derive equitable, lawful and reasonable rates of return for each customer class in comparison with the rate of return earned for each other customer class, and with the total company rate of return. The rates and charges herein approved incorporate features designed to achieve the objectives heretofore deemed appropriate and proper.

The Commission has repeatedly stated its recognition that increases in utility rates may be felt more dramatically by the very low usage customer. However, in our determination that rate structures of jurisdictional utilities should follow, to the fullest extent reasonable, their respective costs of service, by which each customer class sustains an equitable portion of those costs associated with providing proper service to that class, it becomes impossible to provide special relief to a single class of customers through the rate design without creating serious inequities elsewhere. The Commission's concern is in the establishment of a rate structure which provides that all customers bear fairly their proportionate share of the costs of service.

The Company has requested an increase in revenues of

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\$123,770,000, and has submitted proposed rate schedules which would produce that amount of additional revenue. The Commission has determined that the Company should be allowed additional revenues of \$77,063,000 out of the \$123,770,000, rather than the amount requested, a reduction of some \$46,707,000.⁵⁵

The Commission must assume, therefore, the responsibility for the identification of the manner in which the Company's rate schedules should be designed to incorporate our findings herein and reflect the increased revenues herein approved. The Commission acknowledges the complexity of the task. The relevant principles characterized in this discussion and the testimony and exhibits in the record of this proceeding have been fully considered in reaching our findings. The Commission has analyzed the Company's proposed rates and has incorporated our determination of the proper increase in revenues in the derivation of equitable, lawful and reasonable rates of return for each customer class, generally in comparison with the rate of return earned for each other customer class, and with the total Company rate of return.

The Commission has considered a spectrum of factors in its deliberations as to the appropriate allocation of rates in accordance with our finding of a lawful rate of return for the Company. Clearly, cost factors play a prominent role in the identification of the constituent elements of a fair and reasonable rate design, but cost cannot be used as the sole determinant.

The Company proposed residential rate schedules, RW, RA, R, and RC which were designed to maintain the ten (10%) per cent differential in charges between the first 1,000 KWH used and the excess over 1,000 KWH used. This rate design

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See, Section v, supra, regarding this amount.

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Based on the \$103,675,000 amount, the Commission has allowed additional revenues of \$56,968,000, a reduction of \$46,707,000.

is consistent with the rate design previously implemented⁵⁶ by the Company and approved by the Commission. The Commission finds no justification for a departure of this design. Consequently, the Commission finds that this 10% differential should be continued.

The Company proposed an increase in the basic facilities charge in Rate Schedules R, RW, RA, and RC from the currently approved rate of \$4.30 to \$5.30 per month for each residential customer under these rate schedules. The Commission has previously found that the basic facilities charge will be felt dramatically by the very low-use customer.⁵⁷ The Commission considers the Company's present basic facilities charge for its residential customer to be reasonable and fair and therefore denies the increase in this charge proposed by the Company. The basic facilities charge for residential customers on Residential Rate Schedules, R, RW, RA, and RC will remain \$4.30 per month.

The Company proposed an increase in the basic facilities charge for residential service rate schedule RT, time of day service, from the currently approved \$11.74 to \$14.55 per month. The Commission considers the Company's present basic facilities charge in Rate Schedule RT to be reasonable and fair and therefore denies the proposed increase in this charge. The basic facilities charge for residential customers in Rate Schedule RT will remain at \$11.74 per month.

The Company proposed a basic facilities charge in Rate Schedule G, General Service, of \$5.30 in lieu of the presently approved minimum charge of \$1.75. The Commission finds that the request for a basic facilities charge should be granted

⁵⁶
See, Order No. 80-232 issued April 13, 1981 in Docket No. 80-69-E, p. 54.

⁵⁷
See, Order No. 79-230, dated May 17, 1979 issued in Docket No. 78-189-E.

to equal that of the basic facilities charge approved for residential service. Consequently, the Commission herein approves a basic facilities charge in the Company's Rate Schedule G of \$4.30 per month in lieu of the present minimum charge of \$1.75.

The Company also proposed the following changes:
a basic facilities charge in Rate Schedule GA, General Service, All-Electric, of \$10.14; in Rate Schedule GT, General Service, Time-of-Day, the Company proposed a customer charge of \$24.32; in Rate Schedule I, Industrial Service, the Company proposed a basic facilities charge of \$11.05; in Rate Schedule IP, Industrial Service, Parallel Operation, the Company proposed a basic facilities charge of \$11.05; in Rate Schedule IT, Industrial Service, Time-of-Day, the Company proposed a customer charge of \$24.11, and in Rate Schedule PG, Parallel Generation the Company proposed a customer charge of \$37.15. The Commission has reviewed, separately, each of these charges, and studied the increase in the corresponding present charges. The Commission finds, based on the record in this proceeding that the proposed charges as set forth in this paragraph are fair and reasonable and therefore approves same.

Based on the above finding, the Commission finds fair and reasonable the following charges and hereby approves same:

<u>RATE SCHEDULE</u>	<u>APPROVED CHARGES</u>
R, RW, RA and RC	Basic facilities charge - \$ 4.30
RT	Basic facilities charge - 11.74
G	Basic facilities charge - 4.30
GA	Basic facilities charge - 10.14
GT	Customer Charge - 24.32
I	Basic facilities charge - 11.05
IP	Basic facilities charge - 11.05
IT	Customer Charge - 24.11
PG	Basic facilities charge - 37.15

The Company proposed to withdraw the following experimental rate schedules: RWX, Residential Service, Water Heating, Electric/Solar; RAX, Residential Service, All Electric/Solar; and GAX, General Service, All Electric/Solar. The Company proposes to place the customers presently served on these schedules on their appropriate non-experimental rate schedule. The Commission has reviewed this request and finds that it is appropriate. Therefore, the Company's request to withdraw experimental rate schedule RWX, RAX, and GAX is granted and the Company is directed to transfer the customers presently served on these schedules to their appropriate non-experimental rate schedule.

Under the Company's presently approved rates, in the case where the Company supplies electric water heating energy to landlords who supply domestic hot water to their tenants in small apartment houses and in certain small commercial establishments, on Rate Schedule General Service, Water Heating, (W), and no other energy is used by the landlord, the Company may choose not to install a meter for Schedule G if there are not more than 4 tenants and instead has been adding \$1.75 per month to the bill as computed on the foregoing rate. The Company proposes to increase the \$1.75 charge to \$5.30. The Commission has reviewed this proposal of the Company. The Commission finds that the charge of \$1.75 should be increased to the amount of the approved basic facilities charge of Rate Schedule G. Therefore the proposed rate is denied, and the Commission herein approves an increase to \$4.30.

The Company filed alternate Schedules G (General Service) GA (General Service, All Electric), I (Industrial Service) and IP (Industrial Service, Parallel Operation). These Schedules were revised to contain a specifically stated demand charge of \$2.30 per KW of billing demand in excess of 30 KW of billing demand. This separately stated demand

charge is being introduced by the Company to aid in the attainment of the Company's Load Management goals.

SCTMA proposed a Modified Rate I designed to recover costs of service and to encourage the improvement of the affected customer's load factor. Tr., Vol. 15, Brubaker, p. 23-27.

The Commission has reviewed these proposals and finds that the alternate schedules as proposed by the Company should be approved, to provide revenues granted for that particular class, and the Modified Rate I as proposed by SCTMA should be denied.

The Company proposed a companion rate schedule GB (General Service) to be made available to certain customers who would receive extremely high increases on the alternate schedules I, G, and GA. According to the Company, approximately 1,300 customers would find rate schedule GB more attractive than their proposed applicable rate schedules. The Commission after a review of the proposal, finds that Rate Schedule GB is appropriate and reasonable and hereby approves same, to produce revenues found herein to be reasonable.

The Commission has thoroughly reviewed the rate design which the Company placed in effect pursuant to its Undertaking dated November 18, 1981 and find that they adequately and fairly meet the criteria of a sound rate structure to which this Commission has traditionally adhered.

The Commission has analyzed the Company's proposed rate and has incorporated our determination of the proper increase in revenues in the derivation of equitable, lawful and reasonable rates of return for each customer class, generally in comparison with the rate of return earned for each other customer class, and with the total Company rate of return.

In approving the increases in the Company's various classes of service, as illustrated in Table L, infra, the Commission has undertaken to recognize and reconcile the Commission's consistent ratemaking objectives to meet the

revenue requirements found fair and reasonable and to promote fairly the intent to meet the appropriate and proven costs of service. The revenue increases appearing in Table L will be applied to each class of service, as more fully delineated herein, and the Company will be required to file appropriate rate schedules for the approval of the Commission within ten (10) days of the date of this Order.

TABLE L
APPROVED INCREASE BY CLASS

<u>CLASS OF SERVICE</u>	<u>\$(000) BASED ON COMPANY WITNESS Hatley Exh. No. 2</u>	<u>\$(000) BASED ON STAFF WITNESS Price Exh. No. 31*</u>
Residential Service		
R	\$ 2,125	\$ 2,614
RW	8,520	10,781
RA	7,256	9,404
RC	<u>612</u>	<u>796</u>
TOTAL	\$18,513	\$23,595
General Service		
W	13	17
G & GB	5,809	7,585
GA & GB	5,296	7,164
T	165	199
T2	466	566
T2X	1	1
9	1	1
BC	77	101
TS	<u>19</u>	<u>24</u>
TOTAL	\$11,847	\$15,658
Industrial Service		
I & GB	\$24,361	\$34,619
IP	<u>2,247</u>	<u>3,191</u>
TOTAL: INDUSTRIAL	\$26,608	\$37,810
TOTAL Jurisdictional (Retail Electric)	<u>\$56,968</u>	<u>\$77,063</u>

*Test period fuel expense with McGuire savings included in Present Rates.

The increases in revenues as set forth in Table L is \$77,063,000 and the Company is directed to reduce the proposed rates proportionally to produce the additional revenues approved herein using the same method to reduce the proposed rates as used to increase the Company's rates.

When filed in compliance with the terms of this Order and approved by the Commission, the rate schedules will be effective for electrical bills rendered on and after January 28, 1982.

The rates in effect pursuant to the Company's cumulative Undertakings filed January 9, 1981, September 30, 1981 and November 18, 1981 are to be cancelled upon the effective date of the rates approved herein. The Commission finds that the rate design of those rates placed into effect pursuant to those Undertakings, filed January 9, 1981, September 30, 1981 and November 18, 1981, was fair and reasonable for the period of time during which those rates were collected. The Commission also finds that the revenue collected pursuant to the cumulative Undertakings filed January 9, 1981 and September 30, 1981 was fair and reasonable. However, the Commission finds that the revenue collected pursuant to the Undertaking filed November 18, 1981 was unreasonable and excessive. Pursuant, therefore, to the terms of S. C. Code § 58-27-880 (1976), the Commission must describe the manner in which the refund of the excess revenues, should be made.

The Company is hereby directed to refund to the affected customers, the difference between the rates approved herein and the rates placed into effect for bills rendered December 1, 1981 pursuant to the Undertaking filed November 18, 1981. The Company will be directed to refund by credit to each affected existing customer, or by direct payment to affected former customers, the appropriate refund with interest at nine percent (9%) per annum in accordance with the terms of the Undertaking. Furthermore,

the Company is hereby directed to accomplish the refund operation, to certify the completion of the refunds, and to file with the Commission the appropriate calculations illustrating such action, with the refund and interest shown separately.

XIII.

MISCELLANEOUS

On December 14, 1981, the Company requested the Commission to approve an additional charge of .003725 cents per KWH to the residential schedules to fund the residential loan assistance program. The program was previously approved by the Commission in Docket No. 81-321-E, Order No. 81-794 dated November 30, 1981. The purpose of the resumed hearing on December 14, 1981 was limited to matters concerning McGuire Unit No. 1.⁵⁸ Therefore, the request by the Company was not appropriately made and must be denied.

⁵⁸See, Order No. 81-708, supra.

XIV.

FINDINGS AND CONCLUSIONS

Based upon the foregoing considerations and after a full review of the testimony and exhibits presented in this proceeding by the Company, the parties of record, and the Staff, the Commission has made the following findings and reached the following conclusions concerning the operations, the rate of return and the reasonable requirements for earnings to be allowed the Company for its South Carolina retail electric operations:

1. That Duke Power Company is an electric utility, providing electric service, both retail and wholesale, in a service area within South Carolina, and its retail electric operations in South Carolina are subject to the jurisdiction of this Commission, pursuant to S. C. Code Ann., § 58-27-10 et seq. (1976);

2. That the Company's present construction budget for the next three years estimates expenditures of \$1,577,000,000; that the construction of generating capability should be planned and designed at the minimum to meet annual peak loads; that based on the peak load forecasts entered in the record of this proceeding, the Company's present plans for construction of generating facilities are sufficient to meet the projected needs of its customers, which the Commission herein finds reasonable; that the Company is to continue to actively pursue its Load Management Programs, including accelerating the availability of its residential water heater and residential air-conditioner load control program, to more areas of its South Carolina system, more rapidly than the original schedule.

3. That the appropriate test period for the purposes of this proceeding is the twelve-month period ending December 31, 1980.

4. That the rates proposed by the Company would generate additional revenues of \$103,675,000 for the test period ending December 31, 1980 excluding fuel savings reflected as a reduction in revenues.

5. That the Company is seeking an increase in its rates and charges to its retail customers that would produce additional revenues for the test period of \$123,770,000 with fuel savings reflected as a reduction in revenues.

6. That the McGuire Nuclear Unit No. 1 is used and useful and should be included in the Company's rate base, for reasons stated in this Order, in setting rates in this proceeding.

7. That the adjustments reflecting the investment, costs, and expenses of McGuire Nuclear Unit No. 1 were known and measurable at the time of the hearing and their inclusion in this proceeding will establish the actual rate base and net operating income of the Company as well as the proper relationship among costs and investments.

8. That the Motion to Dismiss in Part of the South Carolina Welfare Rights Organization should be denied.

9. That a reasonable original cost South Carolina retail electric rate base used and useful, consisting of the components set forth in Section VI of this Order, as adjusted, in Table C, is \$1,347,183,000 and said rate base should be adopted for the ratemaking purposes herein.

10. That the capital structure, as adjusted, set forth in Table E of Section VII, should be approved;

11. That the embedded cost of long term debt, as of June 30, 1981, is set forth in Table F; that the Company's debt coverage ratio of earnings to fixed charges is set forth in Table G; that the Company's embedded cost of preferred and preference stock, as of June 30, 1981, is set forth in Table H;

12. That a fair and proper return on common equity for the Company falls within the range of 13.00% to 13.50%, and that the rate of return of 13.00% on common equity, produced by the additional revenues of \$77,063,000, as adjusted, as approved, is fair and reasonable;

13. That the Company's embedded cost rate for long-term debt of 9.33%, short-term debt of 5.70%, preferred and preference stock of 8.21% and a cost rate of 13.00% on common equity should be used in the determination of a fair overall rate of return;

14. That the accounting and pro forma adjustments approved and adopted in Section X are reasonable and proper and should be adopted for the purposes of this proceeding.

15. That the proposed accounting and pro forma adjustments disapproved in Section X are unreasonable and improper and should not be adopted for purposes of this proceeding.

16. That the rate of return on the Company's South Carolina retail electric operations, during the test period, after accounting and pro forma adjustments, and prior to any rate adjustment was 7.64%;

17. That the total income for return allocated to South Carolina retail electric operations, after accounting and pro forma adjustments and prior to rate adjustments, was \$102,929,000 for the test period; and that such amount of income is insufficient based on the reasonable rate of return found in this proceeding;

18. That approval should be given for rates which will provide additional gross revenues to the Company of \$77,063,000, on its South Carolina retail electric operations, as adjusted, which will produce an additional net income after taxes for return of \$38,948,000;

19. That the additional revenues allowed would produce a rate of return on approved rate base of 10.57% on South Carolina retail electric operations, which is found to be fair and reasonable;

20. That such additional revenues and the return which these revenues produce are well within the range of reasonableness and fairness, and must be provided if the Company is to meet its statutory requirements to provide adequate, efficient and reasonable service;

21. That the additional revenues would provide the Company the opportunity to earn a rate of return on common equity allocated to South Carolina retail electric operations of 13.00%;

22. That the summer coincident peak methodology utilized by the Company is the appropriate cost of service methodology for the purposes of this proceeding;

23. That the Company should be directed to file rate schedules under both the coincident peak methodology and the peak and average methodology as proposed by the Commission Staff in its next general ratemaking proceeding.

24. That the rate designs proposed by Duke are reasonable and appropriate as modified herein.

25. That the rate design of the rates in effect pursuant to the Company's cumulative undertakings filed January 9, 1981, September 30, 1981 and November 18, 1981 was fair and reasonable for the period of time during which those rates were collected.

26. That the revenues collected pursuant to the cumulative undertakings filed January 9, 1981 and September 30, 1981 was fair and reasonable that the revenues collected pursuant to the undertaking filed November 18, 1981 was unreasonable and excessive.

27. That the rate schedules filed for approval by the Company on December 29, 1980, which produce additional revenues of \$123,770,000 with fuel savings reflected as a reduction in revenues are unlawful and unreasonable, and should be denied;

28. That the Company shall file for approval within ten (10) days of the date of this Order, revised rate schedules to reflect the Commission's determinations herein as fully described in Section XII of this Order;

29. That the rates approved herein shall be effective for bills rendered on and after January 28, 1982, and that the rates in effect pursuant to the Company's Undertakings, shall be cancelled upon the effective date of the rates approved in this Order.

30. That the Company make the appropriate refunds to the affected customers of the revenues found to be unreasonable and excessive; that, further, the Company make such refunds as more fully described in Section XII herein; and that, further, the Company file with the Commission the calculation upon which the refunds are accomplished;

31. That the Company should continue to file with this Commission, as previously ordered, quarterly reports showing:

- (a) Rate of return on approved rate base;
- (b) Return on common equity (allocated to South Carolina retail electric operations)
- (c) Earnings per share of common stock;
- (d) Debt coverage ratio of earnings to fixed charges.

32. That the Company's request of an additional charge of .003725 cents per KWH to fund the residential loan assistance program should be denied.

ACCORDINGLY, IT IS ORDERED, ADJUDGED AND DECREED:

1. That the proposed rate schedules filed by Duke Power Company on December 28, 1980, are unreasonable and improper and are hereby denied.

2. That the Company file with the Commission for approval, within ten (10) days of the date of this Order, rate schedules in accordance with the findings contained herein.

3. That the Company make the refunds to its South Carolina retail electrical customers in accordance with the findings contained herein.

4. That the cumulative Undertakings, filed January 9, 1981, September 30, 1981, and November 18, 1981, be cancelled upon certification to the Commission that the refunds ordered herein have been accomplished, pursuant to the findings herein.

5. That the Motion to Dismiss in Part by the South Carolina Welfare Rights Organization, be, and hereby is, denied.

6. That the Company file the reports identified herein in accordance with our findings.

7. That the Company include in its next general ratemaking application the rate schedules based both the coincident peak methodology and the peak and average methodology.

8. That the Company continue to actively pursue its Load Management Programs, including accelerating the availability of its residential water heater and residential air-conditioner load control program, to more areas of its South Carolina system, more rapidly than the original schedule.

9. That the Company's request of an additional charge of .003725 cents per KWH to fund the residential loan assistance program is hereby denied.

10. That this Order remain in full force and effect until further Order of the Commission.

BY ORDER OF THE COMMISSION:


Chairman

ATTEST:


Executive Director

(SEAL)